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Final

**Rocky Flats Environmental
Technology Site**

**Automated Surface-Water Monitoring
Report**

Water Year 2001

URS



ADMIN RECORD

May 2003

SW-A-005564

**ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
AUTOMATED SURFACE-WATER MONITORING REPORT
Water Year 2001**

**U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado**

FINAL

May 2003

ADMIN RECORD

REVIEWED FOR CLASSIFICATION/UCNI

By B. M. Hoffman

Date 6-16-03

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1. EXECUTIVE SUMMARY

This Report presents the data from selected surface-water monitoring objectives implemented at the Rocky Flats Environmental Technology Site (Site) in accordance with the *Rocky Flats Cleanup Agreement* (RFCA; CDPHE, USDOE, USEPA, 1996) and the *RFETS Integrated Monitoring Plan* (IMP; Kaiser-Hill, 2000). The IMP provides a framework for monitoring in support of transition activities at the Site. This framework includes implementation of a high-resolution surface-water monitoring program that supports data-driven decisions determined by the IMP Data Quality Objectives (DQO) process. The automated surface-water monitoring program is intended to provide:

- Monitoring of multiple parameters for the safe and effective operation of the Site detention ponds;
- Monitoring of flows and contaminant levels in subdrainages to facilitate the identification of contaminant sources;
- Monitoring of various surface-water parameters at various locations on an Ad Hoc basis in support of special projects and/or building operations;
- Monitoring of indicator parameter values at various locations to determine a correlations between indicator parameters and analytical water-quality measurements;
- Detection of a release of contaminants from specific high-risk projects within the Industrial Area (IA);
- Detection of statistically significant increases of contaminants in surface water from within the IA in general;
- Detection of contaminants corresponding to RFCA Action Levels in discharges entering Stream Segment 5 and the Site detention ponds;
- Detection of contaminants corresponding to RFCA Standards in discharges entering Stream Segment 4 and at the Site boundary;
- Monitoring of indicator parameters in discharges leaving the Site boundary as a prudent management action; and
- Monitoring of flows and water-quality in the Buffer Zone (BZ) for ecological and water rights issues, closure planning and design, as well as supporting studies into the interaction between media.

The intent of this report is to provide a comprehensive and detailed summary of the automated surface-water monitoring conducted at RFETS fulfilling the applicable requirements of the Site IMP. As such, this report is organized to follow the framework of the IMP, with each report section providing the objective-specific data evaluations.

This report includes all data collected during Water Year 2001. The term 'water year' (abbreviated as WY) is defined as the period from October 1st through September 30th. For example, WY01 refers to the period from 10/1/00 through 9/30/01. Prior years data collected after the start of RFCA is also included for comparability where appropriate. Future reports will be completed annually for each water year by the end of following water year (September 30th).

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2. INTRODUCTION

2.1 MONITORING HIGHLIGHTS: WATER YEAR 2001

During WY01, the automated surface-water monitoring network successfully fulfilled the targeted monitoring objectives as required by the Site IMP. During the year, ten new monitoring locations were installed to provide increased monitoring resolution as the Site moves toward closure. By the end of the water year the network consisted of 47 locations. During WY01 these locations collected 298 composite samples composed of nearly 16,000 individual grabs.

WY01 was an average year with approximately 13 inches of precipitation. Approximately 50% of the precipitation occurred in the months May through July. The largest events occurred on 7/14/01 (0.93") and 8/9/01 (0.93"). The largest two-day total was 5/4-5/5/01 (1.64"). July was significantly wetter than average, while both April and June were significantly drier than average. The 7/14/01 event was one of the most intense events in the last nine years with peak flow rates from the Industrial Area (IA) estimated at 135 cfs in N. Walnut Cr. and 94 cfs in S. Walnut Cr.

All water-quality data at the RFCA Points of Compliance (POCs) were well below the applicable standards. A new RFCA Point of Evaluation (POE) was established at the wastewater treatment plant to monitor the treated effluent. The operational details for this location (995POE) are given in Section 12. For the other RFCA POEs, all water-quality data were below the applicable action levels, with the exception of GS10 (S. Walnut Cr.). However, GS10 showed reportable plutonium values for only a single day. This reportable value was addressed in the *Final Source Evaluation Report for Point of Evaluation GS10, Water Years 2000 – 2001* (RMRS, 2001b).

New Source Detection (NSD) monitoring of surface-water in the five major pathways from the IA indicated no new source(s) of significant contamination. Source Location monitoring upstream of POE GS10 continued to characterize these drainage areas. Data continued to support the conclusions detailed in previous source evaluation reports for GS10.

Performance monitoring of closure projects at the Site was significantly enhanced with the addition of 9 new locations. Location GS44 was installed to support the D&D of B771; GS49 was installed to support the D&D of B776; GS50 and SW119 were installed to support accelerated actions for the Solar Ponds; and SW055, GS42, GS51, GS52, GS53, and GS54 were installed/upgraded to support accelerated actions for the 903 Pad. Data from all performance locations continued to show that Site projects were not significantly affecting water quality, confirming the effectiveness of the administrative and engineering controls intended to protect surface water. Data collected from location GS50 will also be used to further characterize the GS10 drainage area.

2.1.1 Planned Activities for Water Year 2002

The following program changes are scheduled for Water Year 2002:

- Three temporary monitoring locations will be installed to support flume construction projects for the Walnut Cr. POC (GS03), the N. Walnut Cr. POE (SW093), and the S. Walnut Cr. POE (GS10). Although construction is not scheduled to begin until FY03, these temporary locations will be operated in WY02 in order to establish stage-discharge relationships to allow for flow measurement and automated sampling during construction.
- Performance monitoring location GS55 will be installed to support D&D of B881.
- Performance monitoring location GS56 will be installed to support accelerated actions for the Present Landfill.
- Performance monitoring locations GS22 and GS57 will be installed/upgraded to support D&D of the 400 Area.
- Performance monitoring location GS58 will be installed to support D&D of B886.

- Performance monitoring locations GS59 and SW036 will be installed to support accelerated actions for the Original Landfill.
- Performance monitoring location GS28 will be re-installed to support D&D of the 800 Area.
- Both GS16 and SW091 will be upgraded with logging precipitation gages to enhance coverage.

The addition of the above Performance Monitoring locations will give the Site comprehensive coverage of nearly all closure projects that have the possibility of significantly impacting surface-water quality.

2.2 PURPOSE

This Report presents the data from the automated surface-water monitoring objectives implemented at the Rocky Flats Environmental Technology Site (Site) in accordance with the RFCA and the IMP. The IMP provides a framework for monitoring in support of transition activities at the Site. This framework includes implementation of a high-resolution surface-water monitoring program that supports data-driven decisions determined by the IMP Data-Quality Objectives (DQO) process. This automated monitoring program is intended to provide:

- Monitoring of multiple parameters for the safe and effective operation of the Site detention ponds;
- Monitoring of flows and contaminant levels in subdrainages to allow for the location of contaminant sources;
- Monitoring of various surface-water parameters at various locations on an Ad Hoc basis in support of special projects and/or building operations;
- Monitoring of indicator and field parameters at various locations to provide enhanced analytical data assessment;
- Routine monitoring of point source discharges and reporting of results in compliance with the NPDES permit program to control the release of pollutants into the waters of the United States.
- Detection of a release of contaminants from specific high-risk projects within the IA;
- Detection of statistically significant increases of contaminants in runoff from within the IA in general;
- Detection of contaminants exceeding RFCA Action Levels in discharges entering Stream Segment 5 and the Site detention ponds;
- Detection of contaminants exceeding RFCA Standards in discharges entering Stream Segment 4 and at the Site boundary;
- Monitoring of indicator parameters in discharges leaving the Site boundary as a prudent management action; and
- Monitoring of flows and water-quality in the Buffer Zone (BZ) for ecological and water rights issues, as well as supporting studies into the interaction between media.

2.3 SCOPE

This Report includes:

- A description of the site automated surface-water monitoring program and monitoring network;
- A presentation of discharge and precipitation data summary statistics;
- A loading for selected radionuclides at POEs and POCs;
- A presentation of analytical water-quality results;

- An evaluation of analytical results as required by the Site IMP organized by monitoring objective;
- A presentation and evaluation of real-time water-quality data; and,
- An appendix with detailed hydrologic and water-quality data.

2.4 BACKGROUND

2.4.1 Environmental History

Processing and fabrication of weapons-related components began at the Site in 1952 and continued through 1989. Fabrication of stainless steel components continued in one building, however, through the early 1990's. During operation, environmental protection measures were established that seemed consistent with prudent environmental management. However, some activities resulted in the environmental contamination of portions of the Site. Efforts to document the extent of Site contamination became a major focus in the 1980s and continue today in accordance with the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the RFCA, a cooperative agreement between U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), and Colorado Department of Public Health and Environment (CDPHE). In addition, a historical release report (HRR) (DOE, 1992) has been developed that documents contamination arising from past practices. The HRR is updated on an annual basis with the knowledge gained from ongoing monitoring and investigative activities. The additional information is submitted on an annual basis to the EPA and CDPHE as addenda to the original document.

Documented areas of soil contamination have been designated as Individual Hazardous Substance Sites (IHSSs). Many of these IHSSs have been characterized as part of the Remedial Investigation/Feasibility Study (RI/FS) process which was conducted under the Interagency Agreement (1991) between DOE, CDPHE and EPA. Some IHSSs have already been remediated and the Environmental Restoration Department in accordance with a Site environmental remediation priority ranking system currently schedules others for remediation.

2.4.2 Rocky Flats Cleanup Agreement

The RFCA was officially adopted on July 19, 1996 (CDPHE et. al., 1996). The RFCA replaces the Inter-Agency Agreement (IAG) as the environmental cleanup agreement for RFETS. The RFCA outlines the goals, objectives, and strategies that will lead to the RFETS cleanup and closure mission objectives. The Action Level Framework (ALF) attachment to the RFCA contains specific requirements for environmental monitoring and reporting, and it sets action levels for contaminant concentrations in surface water and in other media. The Integrated Monitoring Plan (IMP) is required under RFCA to further define the monitoring programs for the Site.

To align the surface-water monitoring program with the new RFETS mission and RFCA requirements, the monitoring network was evaluated in 1996. A data-quality objective (DQO) process was used to determine what decisions were necessary for surface water and the function of each location in the network in supporting those decisions. DOE, CDPHE, EPA, and stakeholders were directly involved in decisions involving the monitoring network. Results of this evaluation were integral to the development of the IMP, which is discussed below.

2.4.3 Integrated Monitoring Plan for Surface Water

The Site automated surface-water monitoring network is designed to meet the requirements documented in the Site IMP, which groups all Site surface-water monitoring objectives into five primary categories: Site-Wide, Industrial Area, Industrial Area Discharges to Ponds, Water Leaving the Site, and Off-Site. The ten IMP objectives that are accomplished through the automated monitoring as detailed in the annual Rocky Flats Environmental Technology Site Automated Surface-Water Monitoring Work Plans (RMRS, 2001a) are described briefly below.^{1,2} During WY01, the Site monitoring network included 47 monitoring stations (Figure 2-2) to

¹ The IDLH decision rule (locations indicated in Table 2-1; included in the RFETS Automated Surface-Water Monitoring Work Plans) requires the collection of hydrologic data to support the management of the Site detention ponds. This objective

achieve these objectives.³ In some situations, the same location may serve multiple objectives. Monitoring tasks and data collection, compilation, evaluation, and reporting for each objective included in this report are detailed in Sections 6 through 15.

The IMP used the Data-Quality Objective (DQO) process to determine necessary and sufficient monitoring requirements. The process yielded 19 individual, data-driven, surface-water monitoring objectives (a.k.a. decision rules under the DQO process), a subset (10) of which is implemented through automated monitoring. Some decisions need a higher priority than others, and some need greater confidence. The DQO process produced descriptions that expose the strengths and weaknesses of each data-driven decision and the value of the data (resources required) in making each decision. Management decisions often must be made based on incomplete information. The individual DQO sections of the IMP document guide management in establishing funding priorities for surface-water monitoring objectives.

Five of the IMP automated surface-water monitoring objectives are organized in a roughly upstream-to-downstream direction, beginning with Performance monitoring within the IA and ending downstream at the Points of Compliance at Indiana Street (Figure 2-1). These monitoring objectives are summarized in the following paragraphs and are discussed in detail in Sections 10 through 14.

For the first of the upstream-to-downstream monitoring categories (IA Objectives), the IMP and the IA IM/IRA Decision Document require the Site to characterize significant surface-water releases within the IA. Within the IA [usually], individual high-risk projects will sometimes warrant Performance monitoring (Section 10) to detect a spill or release of contaminants specifically associated with that project.

For the next upstream-to-downstream monitoring category (IA Discharges to Ponds / Segment 5 Objectives), the IMP and the IM/IRA require the Site to identify and correct significant accidental or undetected releases of contaminants from the IA to the Site Detention Ponds (surface water leaving the IA and entering Segment 5). The New Source Detection (NSD; Section 10.3.7) and Point of Evaluation (POE; Section 12) objectives deal with discharges from the IA to the ponds. In order to decide whether a significant release has occurred, the Site performs NSD monitoring of IA runoff for significant increases in contaminants. Additionally, RFCA specifies Stream Segment 5 / POE monitoring for the upstream reaches of Site drainages (above the ponds) and specifies action levels for contaminants (Action Level Framework).

The next, and perhaps most significant monitoring category, is Water Leaving the Site (Segment 4 Objectives). The Site is required to monitor at Point of Compliance locations (POCs) below the terminal ponds to protect state stream standards in Segment 4 (Section 13), as specified in RFCA. In addition, there are RFCA POCs that are located at the Site boundary at Indiana Street (Section 13) for both Walnut and Woman Creeks. The Non-POC decision rule (Section 14) also requires the Site to collect data for selected water-quality parameters at the Indiana Street POCs.

Monitoring objectives that do not fit into the upstream-to-downstream sequence are considered as Site-Wide Monitoring Objectives. Monitoring in support of these objectives can occur at any location within the Site boundary.

For example, Imminent Danger to Life and Health (IDLH) monitoring provides information necessary for safe operation of the Site detention pond dams. This monitoring objective is not discussed in this document, however the hydrologic data associated with this decision rule is presented in Section 3.

does not require any detailed data analysis. Therefore, this decision rule is not included in this report, however, hydrologic data is presented here for completeness.

² Data evaluation from the NPDES monitoring is also included here for the completeness. Additional details on the implementation of NPDES monitoring can be found in the applicable NPDES permit.

³ The period of operation of these locations varies based on project needs and regulatory requirements.

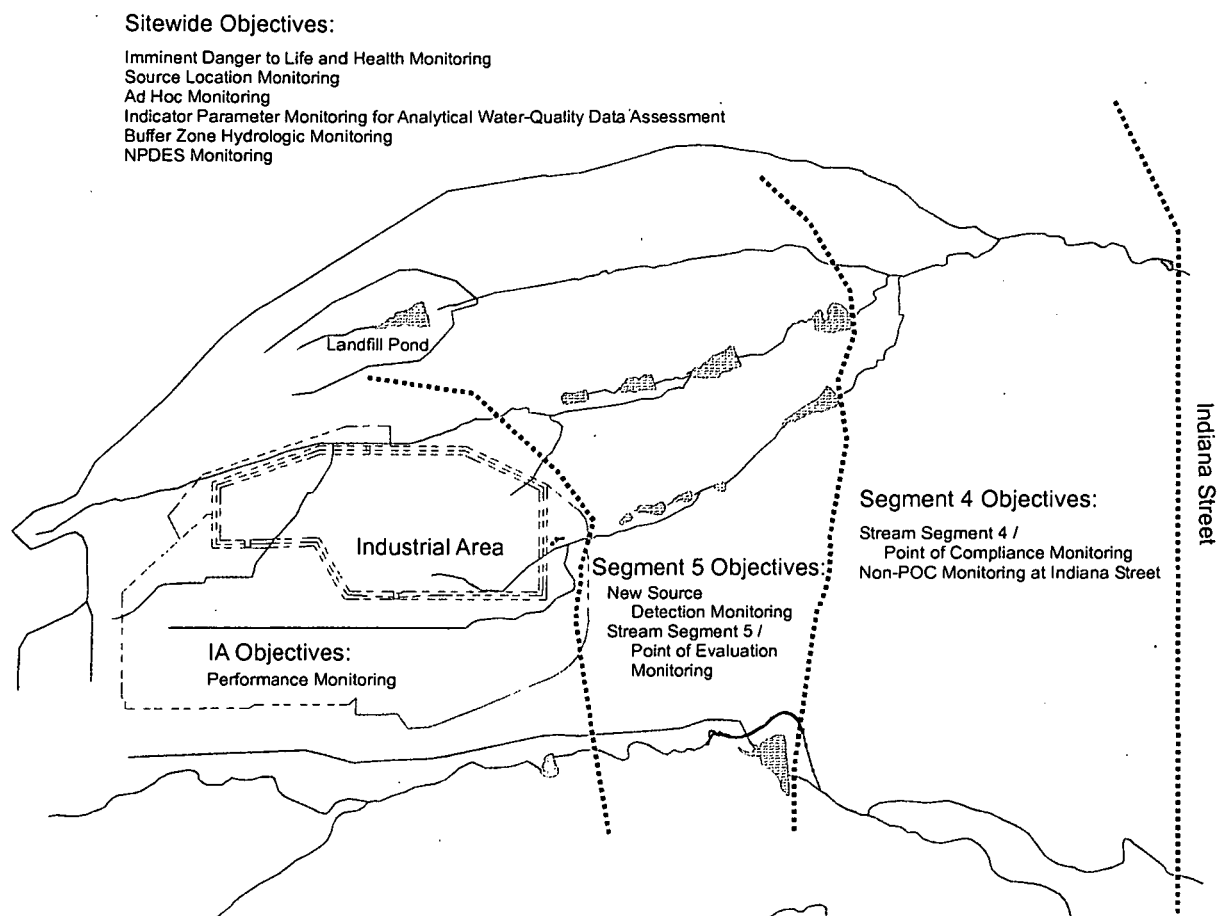


Figure 2-1. Conceptual Model of Site Automated Surface-Water Monitoring Objectives.

Another sitewide monitoring objective, Source Location monitoring (covered in Section 6), is designed to locate a source of contamination detected by other monitoring objectives, and can take place anywhere within the Site boundary. Unplanned, special-request monitoring activities are discussed as Ad Hoc monitoring in Section 7. For example, monitoring may be performed at various locations to evaluate alternatives for surface-water management, such as controlled-detention pond management or re-routing of wastewater treatment plant (WWTP) effluent. Similarly, monitoring may need to be performed to provide data to special projects such as Actinide Migration Evaluation and the Site-Wide Water Balance.

Indicator Parameter Monitoring for Analytical Water-Quality Data Assessment (Section 8) is also implemented sitewide. This objective provides the justification for the collection of general water-quality and quantity information to be used for various data assessments. Specifically, this objective outlines the current and expected uses of parameters such as TSS, turbidity, and flow rate.

The NPDES permit program controls the release of pollutants into the waters of the United States and requires routine monitoring of point source discharges and reporting of results (Section 9). The Site's first NPDES permit was issued by EPA in 1974. The permit was originally reissued by EPA in 1984, expired in 1989, and administratively extended through April 2001. The current NPDES permit became effective May 1, 2001 and required an update to the RFCA Action Level Framework adding a new POE at the Wastewater Treatment Plant (995POE). All monitoring for NPDES compliance is prescriptively required by EPA and is not covered by the IMP process. For the period covered by this report, NPDES monitoring is performed at six locations (two locations after May 1, 2001).

Finally, Buffer Zone Hydrologic monitoring occurs at various locations across the Site and addresses the interfaces between surface water and other media: soil, groundwater, air, and ecology (Section 15).

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**Figure 2-2. RFETS Automated Surface-Water Monitoring Locations and Precipitation Gages:
WY01.**

Figure 2-2
RFETS Automated
Surface-Water Monitoring
Locations and
Precipitation Gages
Water Year 2001

EXPLANATION

- ⊕ Precipitation Gage
- △ Automated Surface Water Monitoring Location
- Standard Map Features**
 - ▭ Buildings and other structures
 - ▨ Solar Evaporation Ponds (SEPs)
 - ▭ Lakes and ponds
 - Streams, ditches, or other drainage features
 - Fences and other barriers
 - - - Topographic Contour (20-Foot)
 - - - Rocky Flats Environmental Technology Site boundary
 - == Paved roads

DATA SOURCE BASE FEATURES:
 Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas.
 Digitized from the orthophotographs, 1/95
 Topographic contours were derived from digital elevation model (DEM) data by Morrison Knudsen (MK) using ESRI Arc TIN and LATICE to process the DEM data to create 5-foot contours. The DEM data was captured by the Remote Sensing Lab, Las Vegas, NV, 1994 Aerial Flyover at 10 meter resolution. DEM post-processing performed by MK, Winter 1997.

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Scale = 1 : 17800
 1 inch represents approximately 1483 feet



State Plane Coordinate Projection
 Colorado Central Zone
 Datum: NAD27

U.S. Department of Energy
 Rocky Flats Environmental Technology Site

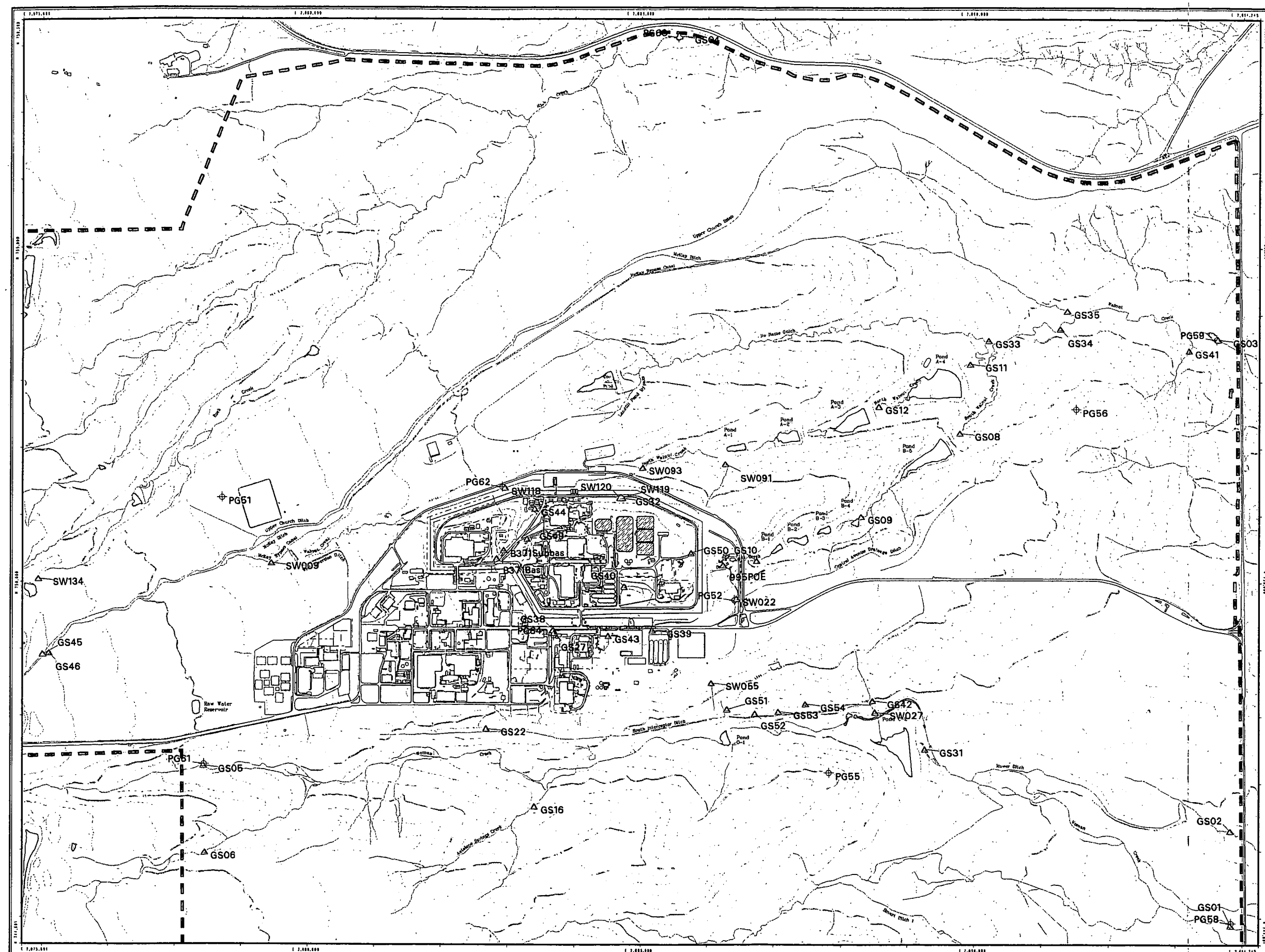
GIS Dept. 303-856-7707

Prepared by:

Prepared for:



April 29, 2003



NT_Srv_w/projects/ly2003/03-0045/aut-sw/loc-sw/01.am

Table 2-1. Matrix of Monitoring Locations and Supported IMP Decision Rules: Water Year 2001.

ID Code	Supported Decision Rule										Precipitation
	IDLH	Source Location	Ad Hoc	Indicator Parameter	Performance	New Source Detection	POE	POC	Non-POC	BZ Hydro	
GS01				✓				✓	✓	✓	✓
GS02				✓						✓	
GS03				✓				✓	✓	✓	✓
GS04				✓						✓	✓
GS05				✓						✓	✓
GS06				✓						✓	
GS08	✓			✓				✓			
GS09	✓										
GS10	✓			✓		✓	✓				
GS11	✓			✓				✓			
GS12	✓										
GS16										✓	
GS22			✓								
GS27		✓		✓	✓						✓
GS31	✓			✓				✓			
GS32				✓	✓						
GS33			✓								
GS34			✓								
GS35			✓								
GS38		✓		✓							
GS39		✓		✓	✓						
GS40		✓		✓	✓						
GS41			✓	✓							
GS42			✓	✓	✓						
GS43		✓		✓	✓						
GS44				✓	✓						
GS45			✓								
GS46			✓								
GS49				✓	✓						
GS50		✓		✓	✓						
GS51				✓	✓						
GS52				✓	✓						
GS53				✓	✓						
GS54				✓	✓						
SW009			✓								
SW022		✓		✓	✓	✓					✓
SW027	✓			✓		✓	✓				
SW055				✓	✓						
SW091				✓	✓	✓					✓
SW093	✓			✓		✓	✓				
SW118										✓	✓
SW119				✓	✓						
SW120				✓	✓						
SW134				✓						✓	
995POE	✓						✓				
B371BAS			✓								
B371SUBBAS			✓								
RPTR											✓
RPTR2											✓
RPTR3											✓

Note: NPDES locations are not included in this table since all monitoring for NPDES compliance is prescriptively required by EPA and is not covered by the IMP process.

Many locations provide flow data to the Sitewide Water Balance as AdHoc locations. Only those locations specifically installed as AdHoc locations are noted above.

2.5 SETTING

2.5.1 Site Description

The Site is a government-owned, contractor-operated facility in the DOE nuclear weapons complex, located in Golden, Colorado. The Site is owned by the U.S. Department of Energy (DOE), managed by the DOE Rocky Flats Field Office (DOE, RFFO), and operated by Kaiser-Hill, L.L.C. (K-H). The RFCA surface-water monitoring program is managed and implemented by the Water Programs Group of Safe Sites of Colorado, L.L.C. (SSOC), under contract to Kaiser-Hill.

This program is implemented at multiple locations throughout the Site. The Site land area can be divided into two portions: the IA (Industrial Area within the inner fence) and the Buffer Zone (the open space surrounding the IA but within the DOE property line). Figure 2-2 shows the locations of the automated surface-water monitoring locations operated during WY01 that are included in this report.

Each monitoring location is equipped with instrumentation capable of satisfying the location-specific sample collection and data acquisition requirements.

2.5.2 Hydrology

Streams and seeps at RFETS are largely ephemeral, with stream reaches gaining or losing flow, depending on the season and precipitation amounts. Surface water flow across RFETS is primarily from west to east, with three major drainages traversing the Site. Fourteen detention ponds (plus several small stock ponds) collect surface water runoff, although only ten ponds are actively managed. The Site drainages and detention ponds, including their respective interest to this report, are described below and shown in Figure 2-3.

Walnut Creek

Walnut Creek receives surface-water flow from the central third of RFETS, including the majority of the IA. It consists of several tributaries, North Walnut Creek, South Walnut Creek and No Name Gulch that join prior to Walnut Creek flowing off RFETS at the eastern boundary (Indiana Street). East of Indiana Street, Walnut Creek flows through a diversion structure normally configured to divert flow to the Broomfield Diversion Ditch around Great Western Reservoir and into Big Dry Creek. The Walnut Creek tributaries, from north to south, are described below:

McKay Ditch

The McKay Ditch was formerly a tributary to Walnut Creek within the RFETS boundaries but was diverted in July 1999 into a new pipeline to keep McKay Ditch water from co-mingling with RFETS water in Walnut Creek. Although no longer a contributor to Walnut Creek, the McKay Ditch drainage is described here to clarify water routing at the Site. The new configuration allows the City of Broomfield to transport water from the South Boulder Diversion Canal, across the northern Rocky Flats Buffer Zone and directly into Great Western Reservoir without entering Walnut Creek. This configuration prevents commingling of McKay water with discharged water from the Site detention ponds.

No-Name Gulch

This drainage is located downstream from the Present Landfill and Landfill Pond. A surface-water diversion ditch was constructed around the perimeter of the Present Landfill in 1974 to divert surface-water runoff around the landfill and reduce infiltration of surface water into the landfill. On the north side of the landfill, the ditch runs under a perimeter road through a small culvert and east into a small, natural drainage that eventually joins No Name Gulch below the Landfill Pond dam. On the south side of the landfill, the ditch runs east above the Landfill Pond and drops into No Name Gulch below the dam. The Landfill Pond covers approximately 2.5 acres. Surface-water from the landfill and from the area surrounding the pond is a major contributor to pond water. Some portion of the runoff is diverted by the surface-water diversion

ditch, while a significant fraction flow to the Landfill Pond. Water is periodically transferred to the A-Series Ponds to control the water level in the Landfill Pond. Runoff from the IA does not flow into this basin.

North Walnut Creek

Runoff from the northern portion of the IA flows into this drainage, which has four detention ponds (Ponds A-1, A-2, A-3, and A-4). The combined capacity of the A-Series ponds is approximately 197,000 cubic meters (m^3) (52 million gallons [160 acre-feet]). In the normal operational configuration, Ponds A-1 and A-2 are bypassed and maintained for emergency spill control; evaporation or transfer controls water levels in these ponds. Pond A-1 also receives water pumped from the Landfill Pond roughly once per year. North Walnut Creek flow is diverted around Ponds A-1 and A-2 to Pond A-3 for detainment and settling of solids. Pond A-3 is discharged in batches to the A-Series "terminal pond", Pond A-4. After filling to a maximum safe level (typically approximately 50 percent of capacity), Pond A-4 water is isolated, sampled and released if downstream surface-water quality criteria are met. These off-site discharges, each averaging approximately 63,000 m^3 (16.6 million gallons [51 acre-feet]), typically occur 2 to 4 times per year.

South Walnut Creek

Runoff from the central portion of the IA flows into this drainage, which has five detention ponds (Ponds B-1, B-2, B-3, B-4, and B-5). The combined capacity of the South Walnut Creek detention ponds (B-series ponds) is approximately 102,000 m^3 (27 million gallons [83 acre-feet]). Ponds B-1 and B-2 are bypassed and maintained for emergency spill control; evaporation or transfer controls water levels in these ponds. Pond B-3 receives effluent from the Site's wastewater treatment plant (WWTP) and flows into Pond B-4. South Walnut Creek flow is diverted around Ponds B-1, B-2, and B-3, into Pond B-4, which flows continuously into "terminal pond" Pond B-5. After filling to a maximum safe level, Pond B-5 is released in batches of approximately 54,000 m^3 (14.3 million gallons [44 acre-feet]) to South Walnut Creek. Pond B-5 discharges typically occur 6 to 8 times per year.

South Interceptor Ditch

South of the IA is the South Interceptor Ditch (SID)/Woman Creek drainage system. Although it is tributary to Woman Creek, the SID warrants more thorough discussion than other comparable tributaries at the Site because it captures runoff from the southern portion of the IA, a drainage basin that includes the Original Landfill and the 903 Pad.

Surface water runoff from the southern portion of the IA is captured by the SID, which flows from west to east into Pond C-2. After 1992 Pond C-2 was pump discharged to the Broomfield Diversion Ditch after reaching a pre-designated level. Water from Pond C-2 is sampled and, if downstream surface-water quality is met, pump discharged into Woman Creek which flows to the Woman Creek Reservoir. (See the Woman Creek description below.) These off-site discharges from Pond C-2, each averaging approximately 46,900 m^3 (12.4 million gallons [38 acre-feet]), typically occur once per year.

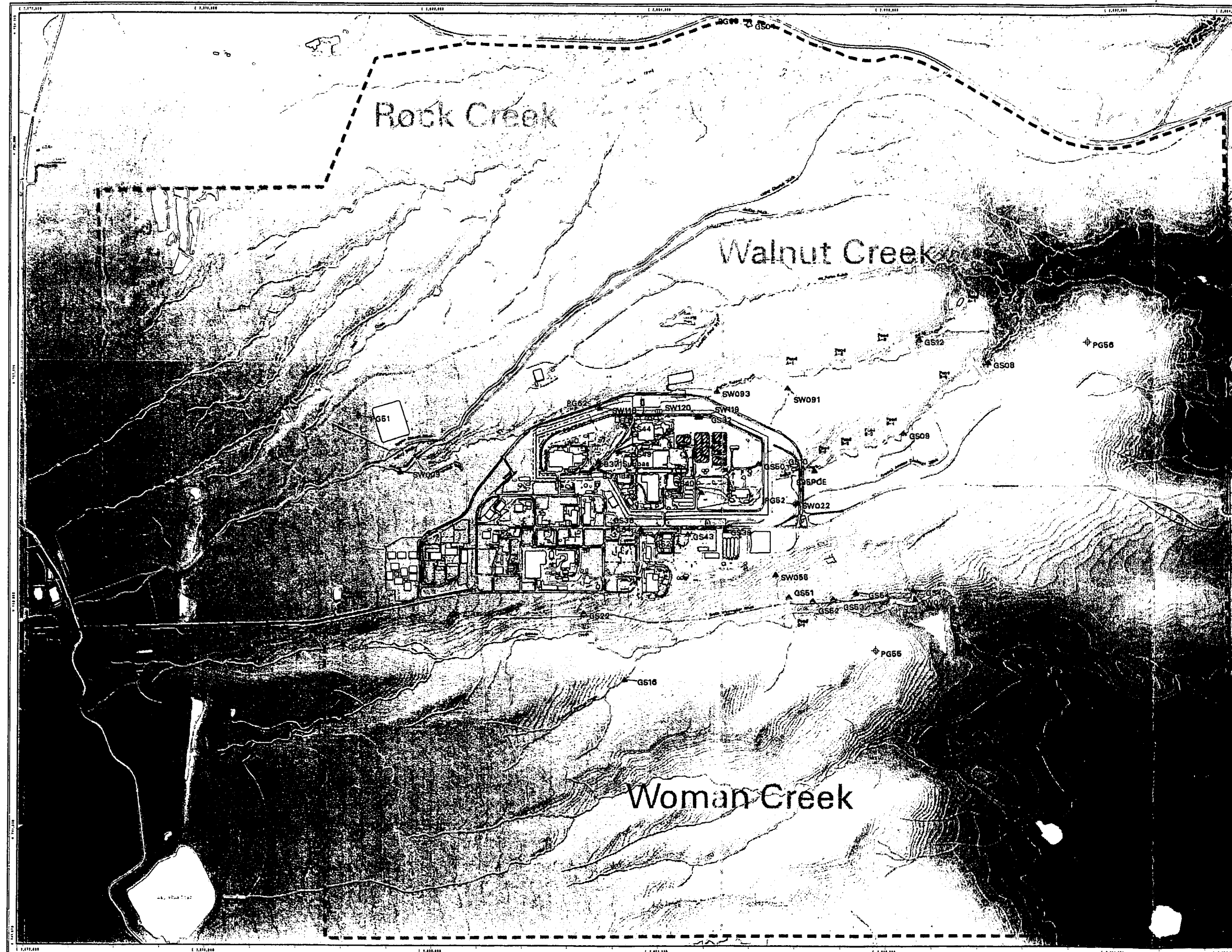
Woman Creek

South of the SID is Woman Creek, which flows through Pond C-1 and off-site at Indiana Street. The Woman Creek drainage basin extends eastward from the base of the foothills, near Coal Creek Canyon, to Standley Lake. In the current configuration, Woman Creek flows into the Woman Creek Reservoir located upstream of Standley Lake, where Woman Creek water is held until it is pump transferred to Big Dry Creek by the City of Westminster.

Other Drainages

The third major drainage at the Site, other than Walnut and Woman Creeks, is Rock Creek. The Rock Creek drainage covers the northwestern portion of the Site's Buffer Zone. East sloping alluvial plains to the west, several small stock ponds within the creek bed, and multiple steep gullies and stream channels to the east characterize the drainage channel. This basin receives no runoff from the IA.

Smart Ditch, located south of Woman Creek, is also hydrologically isolated from the IA. The D-series Ponds (D-1 and D-2) are located on Smart Ditch. This drainage and these ponds are not discussed in this report.



Rocky Flats Environmental Technology Site

Figure 2-3
Automated Surface Water
Monitoring Locations
and Precipitation Gages
for Water Year 2001
in Woman, Walnut
and Rock Creeks

EXPLANATION

- ◆ Precipitation Gage
- △ Automated Surface Water Monitoring Location
- Major Drainage Basins

Standard Map Features

- Buildings and other structures
- ▨ Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Topographic Contour (20-Foot)
- Rocky Flats Environmental Technology Site boundary
- Paved roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas.
Digitized from the orthophotographs, 1/95
Topographic contours were derived from digital elevation model (DEM) data by Morrison Knudsen (MK) using ESRI Arc TIN and LITICE to process the DEM data to create 5-foot contours. The DEM data was captured by the Remote Sensing Lab, Las Vegas, NV, 1994 Aerial Flyover at ~ 10 meter resolution. DEM post-processing performed by MK, Winter 1997.

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Scale = 1 : 21070
1 inch represents approximately 1.756 feet



State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. 303-866-7707

Prepared by:

Prepared for:



April 26, 2003

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3. HYDROLOGIC DATA

3.1 DATA PRESENTATION

3.1.1 Discharge Data Collection and Computation

The data obtained at a continuous surface-water gaging station on a stream or conveyance, such as an irrigation ditch, consist of a continuous record of stage⁴, individual measurements of discharge throughout a range of stages, and notations regarding factors that might affect the relation of stage to discharge. These data, together with supplemental information such as climatological records, are used to compute daily mean discharges.

Continuous records of stage are obtained with electronic recorders that store stage values at selected time intervals or secondarily with radio-telemetry data-collection platforms that transmit near real-time data at selected time intervals to a central database for subsequent processing. Direct field measurements of discharge are made with current meters, using methods adapted by the USGS as a result of experience accumulated since 1880, or with flumes or weirs that are calibrated to provide a relation of observed stage to discharge. These methods are described by Carter and Davidian (1968) and by Rantz and others (1982).

In computing discharge records for non-standard flow-control devices, results of individual measurements are plotted against the corresponding stage, and stage-discharge relation curves are constructed. From these curves, rating tables indicating the computed discharge for any stage within the range of the measurements are prepared. For standard devices (e.g. flumes, weirs), rating tables indicating the discharge for any stage within the range of the device are prepared based on the geometry of the device. If it is necessary to define extremes of discharge outside the range of the device, the curves can be extended using: (1) Logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-back-water techniques.

Daily mean discharges are computed by averaging the individual discharge measurements using the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic vegetation growth or debris on the control. For some gaging stations, formation of ice in the winter can obscure the stage-discharge relations so that daily mean discharges need to be estimated from other information, such as temperature and precipitation records, notes of observations, and records for other gaging stations in the same or nearby basins for comparable periods.

For most gaging stations, there may be periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily mean discharge or contents. This record loss occurs when recording instruments malfunction or otherwise fail to operate properly, intakes are plugged, the stilling well is frozen, or various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, climatological records, and comparison with other gaging-station records from the same or nearby basins. Information explaining how estimated daily discharge values are identified in gaging-station records is provided in the "Identifying Estimated Daily Discharge" section below.

3.1.2 Data Presentation

The information published for each continuous-record surface-water gaging station consist of six parts: the station description; a map showing the drainage area for the station; a plot of the daily mean discharge for the water year(s); a table of daily mean discharge values for the water year with summary data; a tabular statistical

⁴ Stage is the water level (in units such as feet or meters) in a conveyance structure.

summary of monthly mean discharge data for the water year; and a summary statistics table that includes statistical data of annual discharge and runoff. The tables are included in Appendix A: Hydrologic Data, while the other information is presented below.

3.1.3 Station Description

The station description provides, under various headings, descriptive information included gaging-station location, drainage area, period of record, and gage information. The following information is provided:

LOCATION - This entry provides the gaging-station state plane coordinates and geographic location. Gaging station state plane coordinates were obtained by GPS or digitized from RFETS GIS coverages.

DRAINAGE AREA - This entry provides the drainage area (in acres) of the gaged basin. If, because of unusual natural conditions or artificial controls, some part of the basin does not contribute flow to the total flow measured at the gage, the noncontributing drainage area also is identified. Drainage area is usually measured using digital techniques and the most accurate maps available. Because the type of map available might vary from one drainage basin to another, the accuracy of digitized drainage areas also can vary. Drainage areas are updated as better maps become available. Some of the gaging stations included in this report measure stage and discharge in channels that convey water to or from reservoirs or other features; these channels might have little or no contributing drainage area. Drainage areas in this report were provided by RFETS GIS coverages.

PERIOD OF RECORD - This entry provides the period for which the Site has been collecting records at the gage. This entry includes the month and year of the start of collection of hydrologic records by the Site and the words "to current year" if the records are to be continued into the following year.

GAGE - This entry provides the type of gage currently in use; and a condensed history of the types and locations of previous gages.

3.1.4 Daily Mean Discharge Values

The daily mean discharge values computed for each gaging station during a water year are listed in the body of the data tables in Appendix A. In the monthly "FLOW RATE" summary part of the table, the line headed "AVERAGE" lists the average discharge, in cubic feet per second, during the month; and the lines headed "MAXIMUM" and "MINIMUM" list the maximum and minimum daily mean discharges for each month. Total discharge for the month also is expressed in cubic feet ("CUBIC FEET"), gallons ("GALLONS"), and acre-feet ("ACRE-FEET"). The term "PARTIAL DATA" denotes a month with incomplete data.

3.1.5 Summary Statistics

A section of the table titled ANNUAL SUMMARIES FOR WY01 follows the monthly mean data section. This section provides a statistical summary of annual discharge flow rates and volumes for the labeled water year. The applicable units are left of the table value. The term "PARTIAL DATA" denotes a year with incomplete data.

3.1.6 Identifying Estimated Daily Discharge

Estimated daily discharges published in water-discharge tables and figures of this annual report are identified by *italicizing* individual daily values or through color-coding in hydrographs.

3.1.7 Other Records Available

Information used in the preparation of the records in this report, such as discharge-measurement notes, gage-height records, and rating tables, are on file at the Site. Information on the availability of the unpublished information or on the published statistical analyses is available from RFETS personnel involved with data collection at the Site.

**Figure 3-1
RFETS Buffer Zone
Water Routing
Schematic
Water Year 2001**

EXPLANATION

- ▲ Automated Monitoring Station
- Normal Uncontrolled Runoff Pathway
- Normal Controlled Flow Pathway

Standard Map Features

- Buildings and other structures
- Paved roads fill
- ▨ Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- == Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs. 1/95

NOTES:
The monitoring locations, flow and runoff pathways on this map are approximate and, as such, are not intended to accurately portray the true locations of these features. This schematic has been modified to clearly identify the relationships between the surface water map features.

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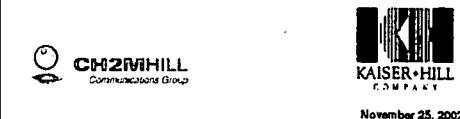


Scale = 1 : 18180
1 inch represents approximately 1516 feet

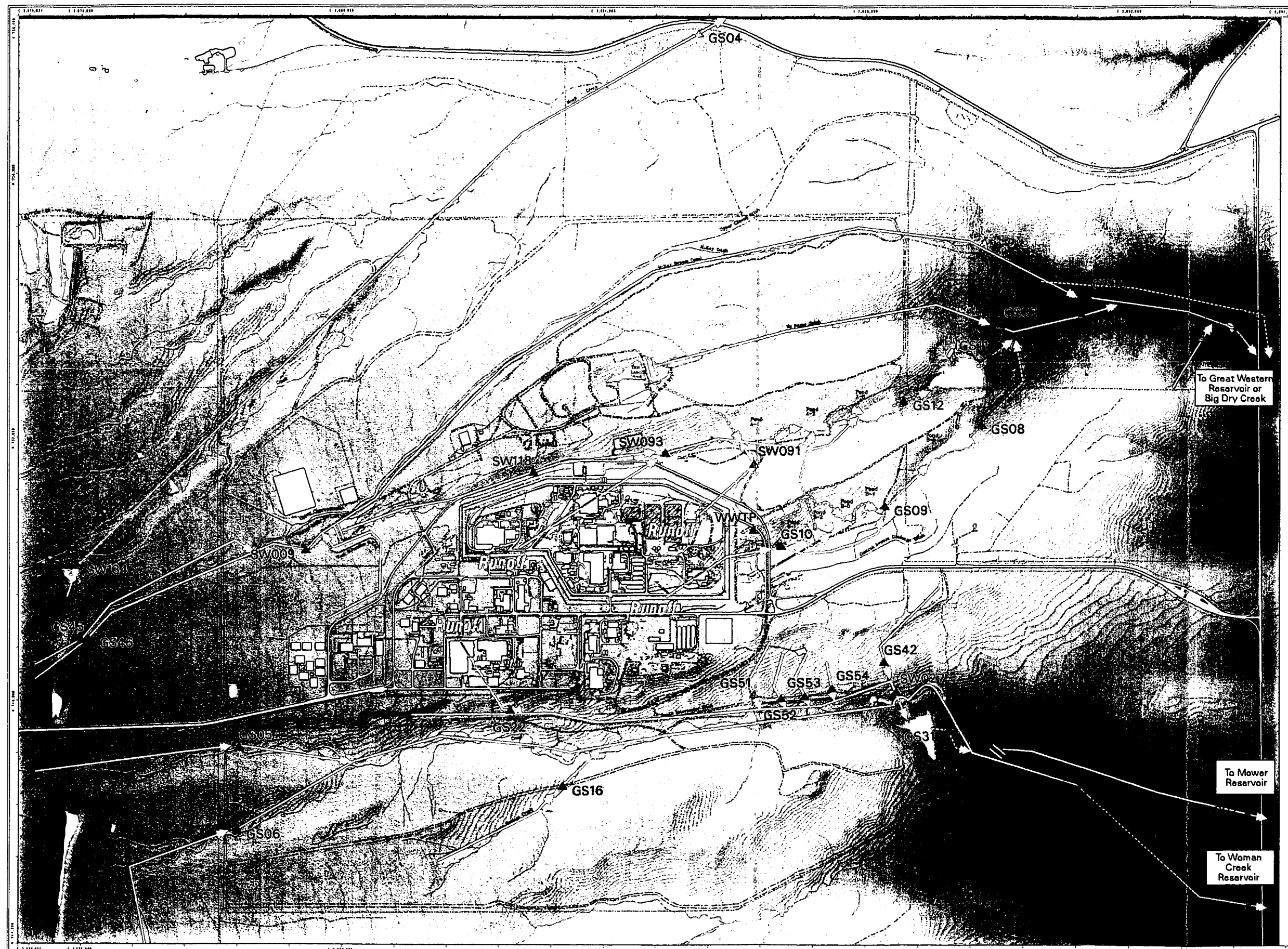


State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site
GIS Dept. 303-865-7707



November 25, 2002



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**Figure 3-2
RFETS Industrial Area
Water Routing
Schematic
Water Year 2001**

EXPLANATION

- ▲ Automated Monitoring Station
- Normal Uncontrolled Runoff Pathway
- - - Normal Controlled Flow Pathway

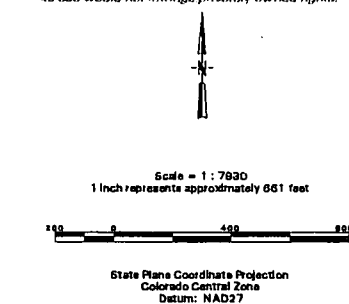
Standard Map Features

- Buildings and other structures
- Paved roads fill
- ▨ Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES:
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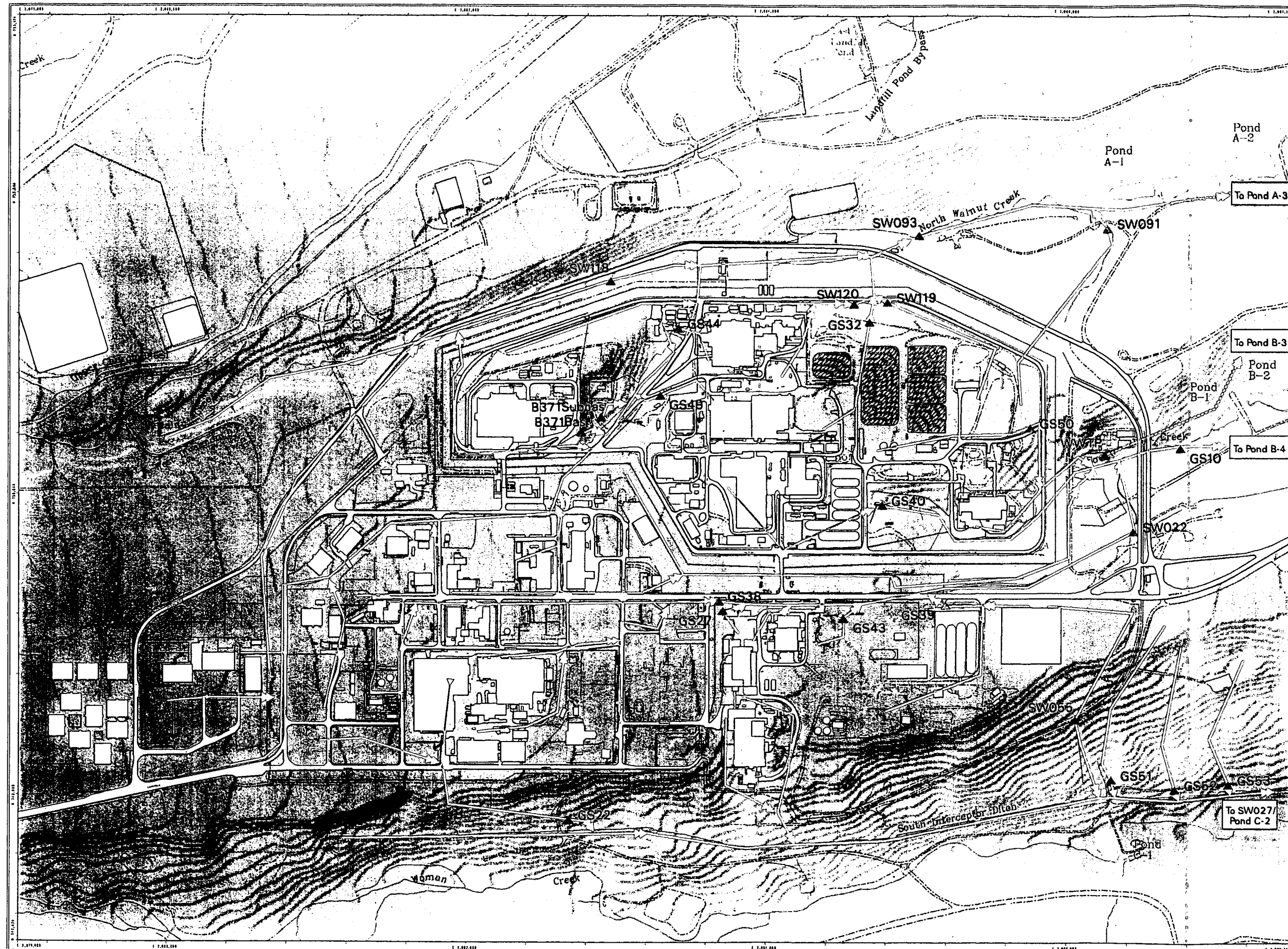
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3.2 DISCHARGE DATA SUMMARIES

The following section provides information on all automated surface-water monitoring locations at RFETS operating during Water Year 2001. Some locations do not have continuous flow record; they were operated only to collect automated surface-water samples for laboratory analysis. For locations with continuous flow measurement, graphical discharge summaries are given below. Numerical discharge values are included in the tables in Appendix A. The hydrologic routing diagrams for the locations included in this report are given in Figure 3-1 and Figure 3-2.

3.2.1 Sitewide Discharge Summary

Discharge summaries for the three major Site drainage areas (Walnut, Woman, and Rock Creeks) are given in Figure 3-3 and Figure 3-4. Walnut Cr. flows are measured at GS03, Woman Cr. flows are measured at GS01, and Rock Cr. flows are measured at GS04. Figure 3-5 shows the relative total WY97-01 discharge volumes from the major Site drainages as measured at GS01, GS03, and GS04.

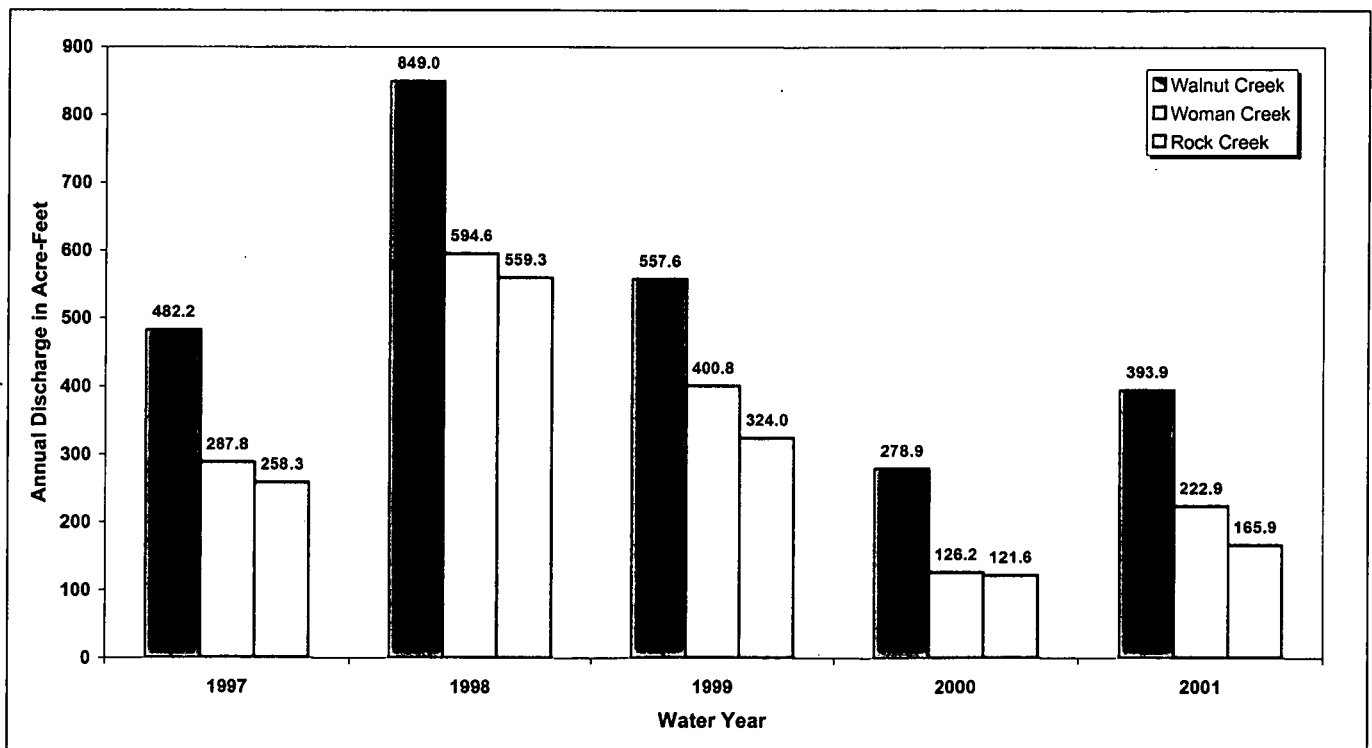


Figure 3-3. Annual Discharge Summary from Major Site Drainages: WY97-01.

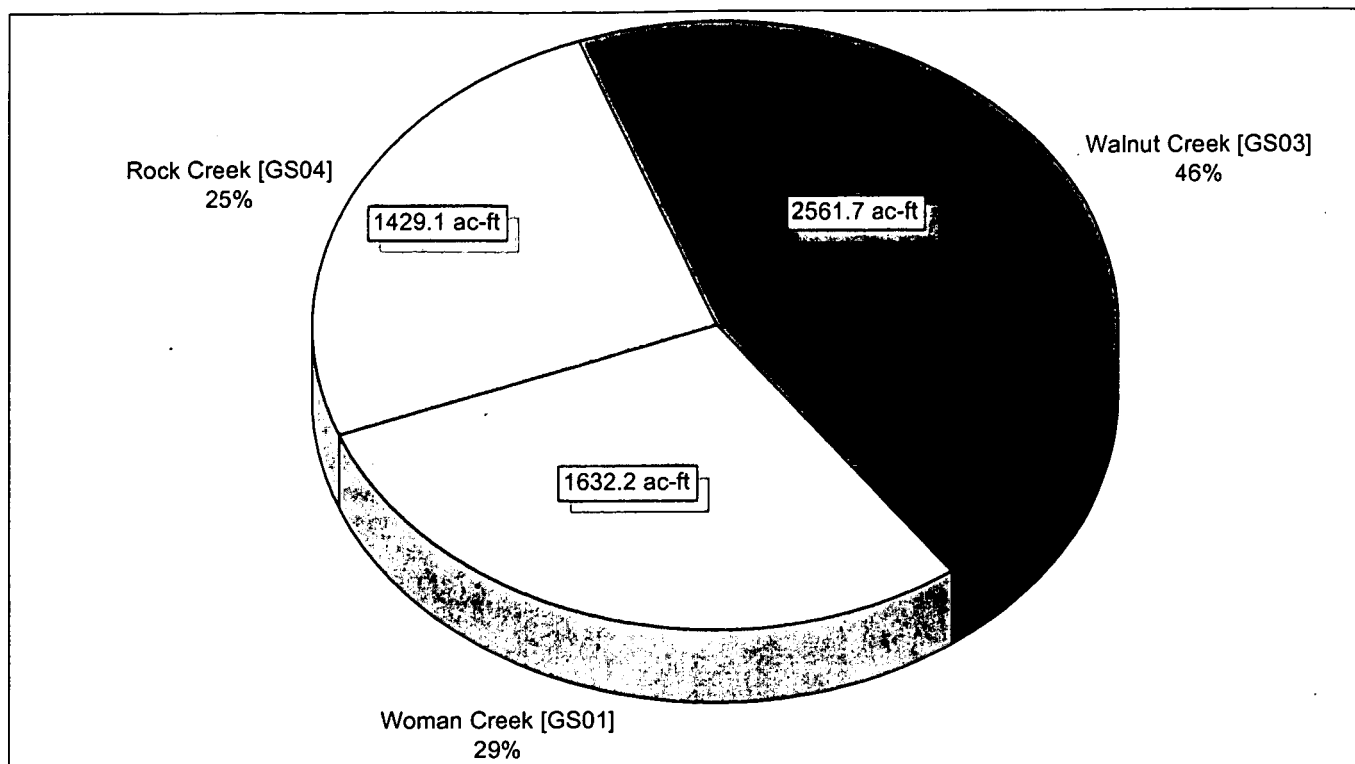


Figure 3-4. Relative Total Discharge Summary from Major Site Drainages: WY97-01.

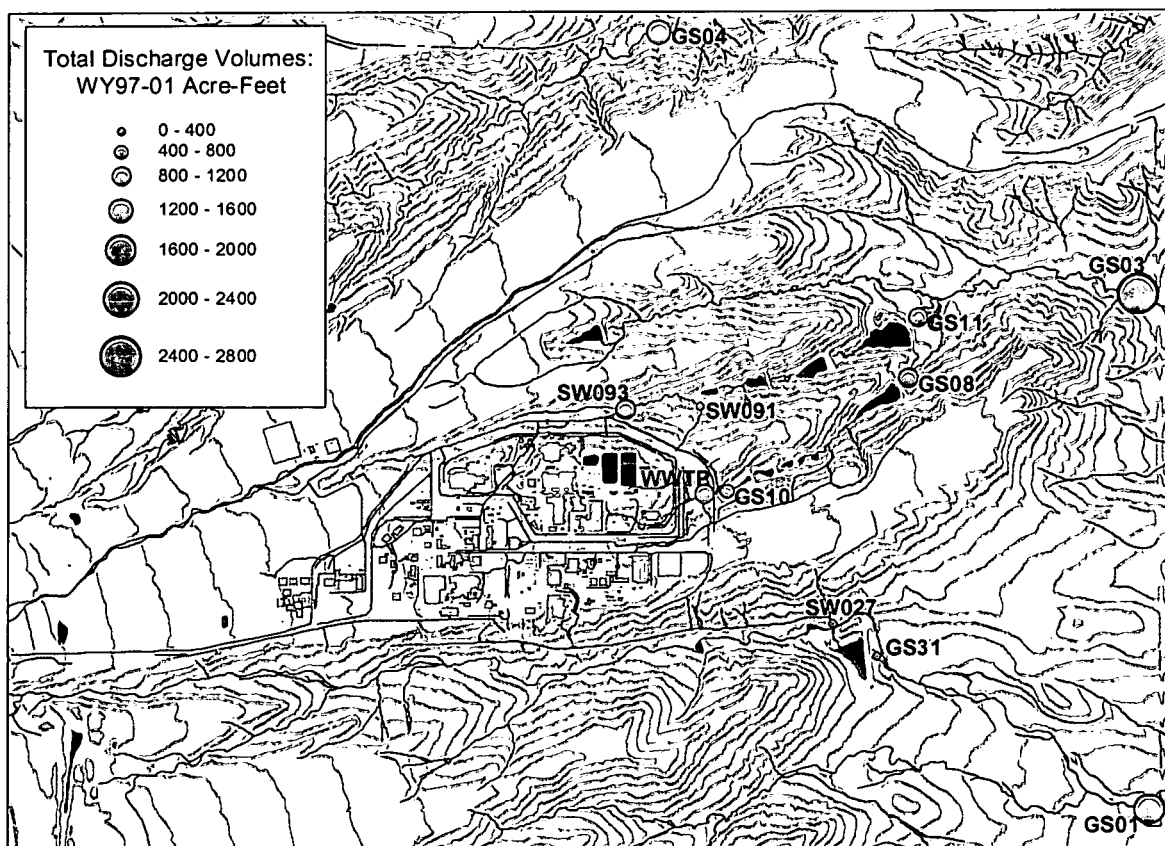
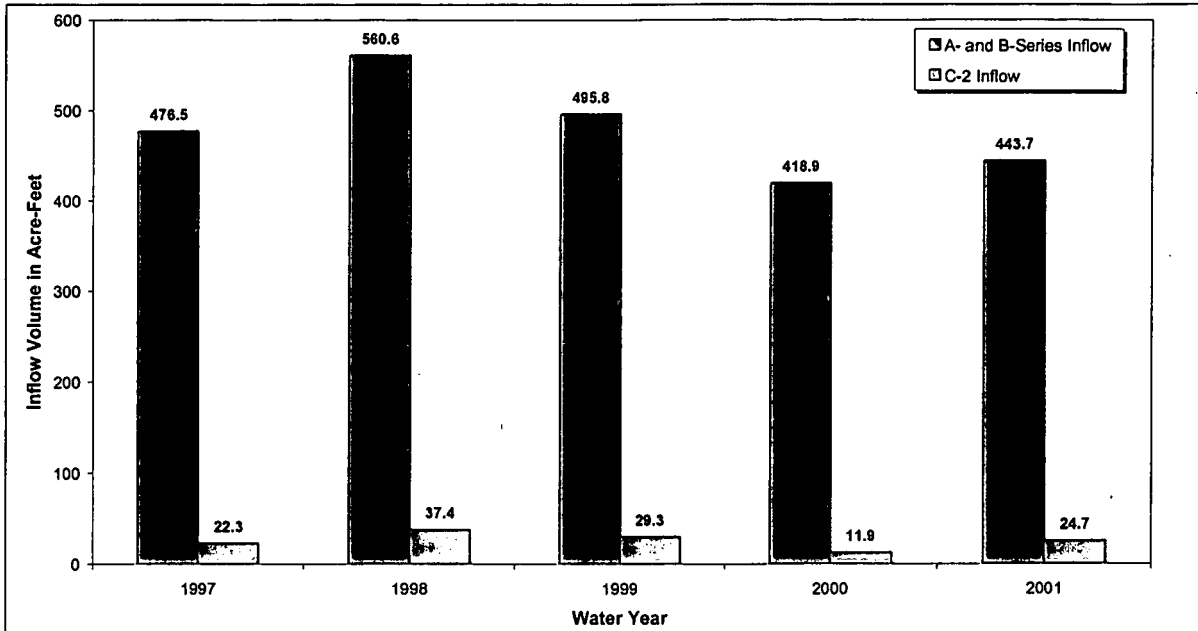


Figure 3-5. Map Showing Relative WY97-01 Discharge Volumes for Selected Gaging Stations.

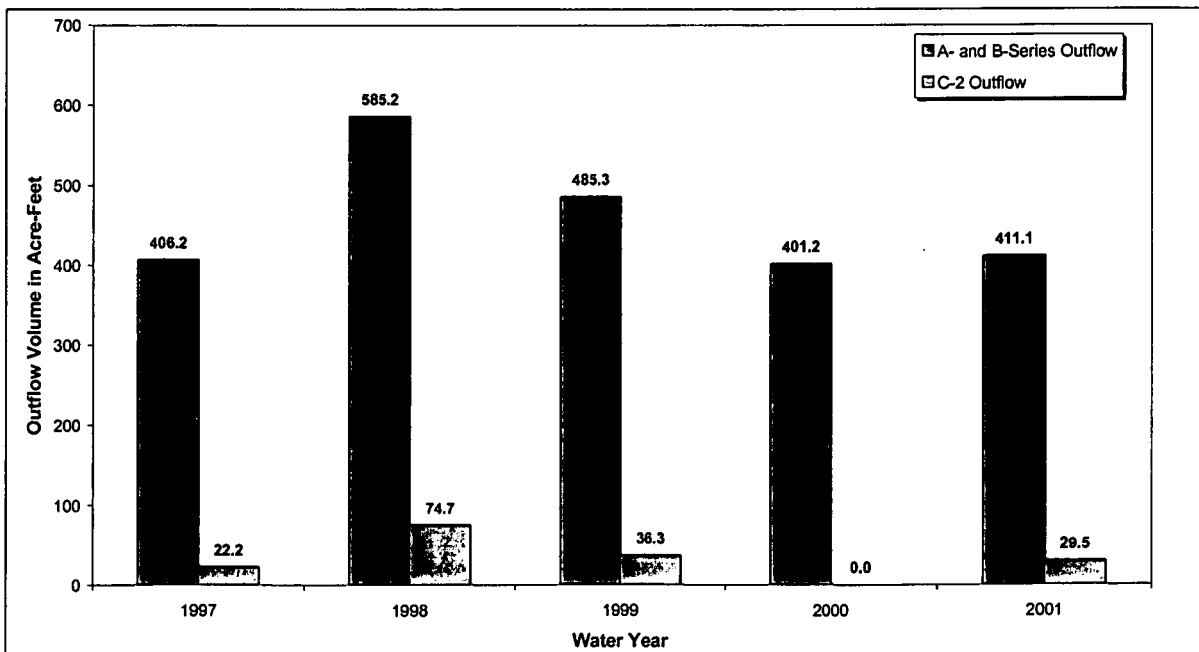
3.2.2 Detention Ponds Discharge Summary

Figure 3-6 and Figure 3-7 show the relative annual detention ponds inflows and outflows, respectively. Due to the routine WY97 pump transfers of Pond B-5 water to Pond A-4, the volumes for the A- and B-Series ponds are combined. Figure 3-5 shows the relative total WY97-01 discharge volumes from the detention ponds (as measured at GS08, GS11, and GS31) and from the major IA drainages to the ponds (as measured at GS10, SW027, SW093, and the WWTP). Pond inflows do not necessarily equal outflows for any given year due to the storage of water in the ponds across water years.



Notes: A- and B-Series Inflow is the sum of GS10, the WWTP, SW091 and SW093. The C-2 Inflow is the volume measured at SW027.

Figure 3-6. Detention Pond Inflows: WY97-01.



Notes: A- and B-Series Outflow is the sum of GS11 and GS08. The C-2 Outflow is the volume measured at GS31.

Figure 3-7. Detention Pond Outflows: WY97-01.

3.2.3 GS01: Woman Creek at Indiana Street

Location

Woman Creek 200' upstream of Indiana Street; State Plane: 2093820; 744894

Drainage Area

- * The basin includes the Woman Cr. drainage and southern portions of the IA; areas west of SH93 also contribute runoff (total drainage acreage unknown)
- * IA Areas tributary to GS01: 900, 800, 600, and 400

Period of Record

September 16, 1991 to current year

Gage

Water-stage recorder and 18" Parshall flume (flume is located just east of Indiana St., sampling conducted on Site property); prior to 3/24/98 flow measurement was at the onsite sampling location on 9" Parshall flume

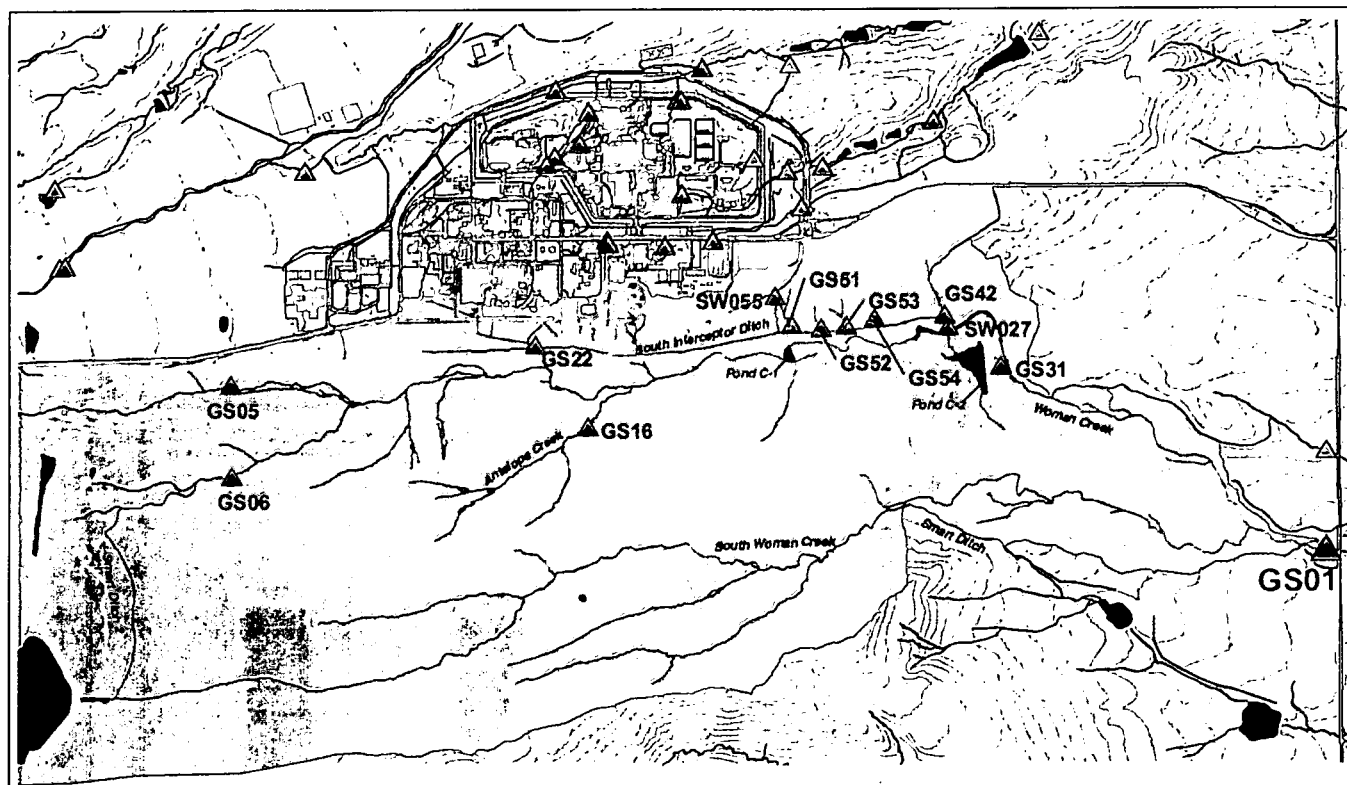


Figure 3-8. Map Showing GS01 Drainage Area.

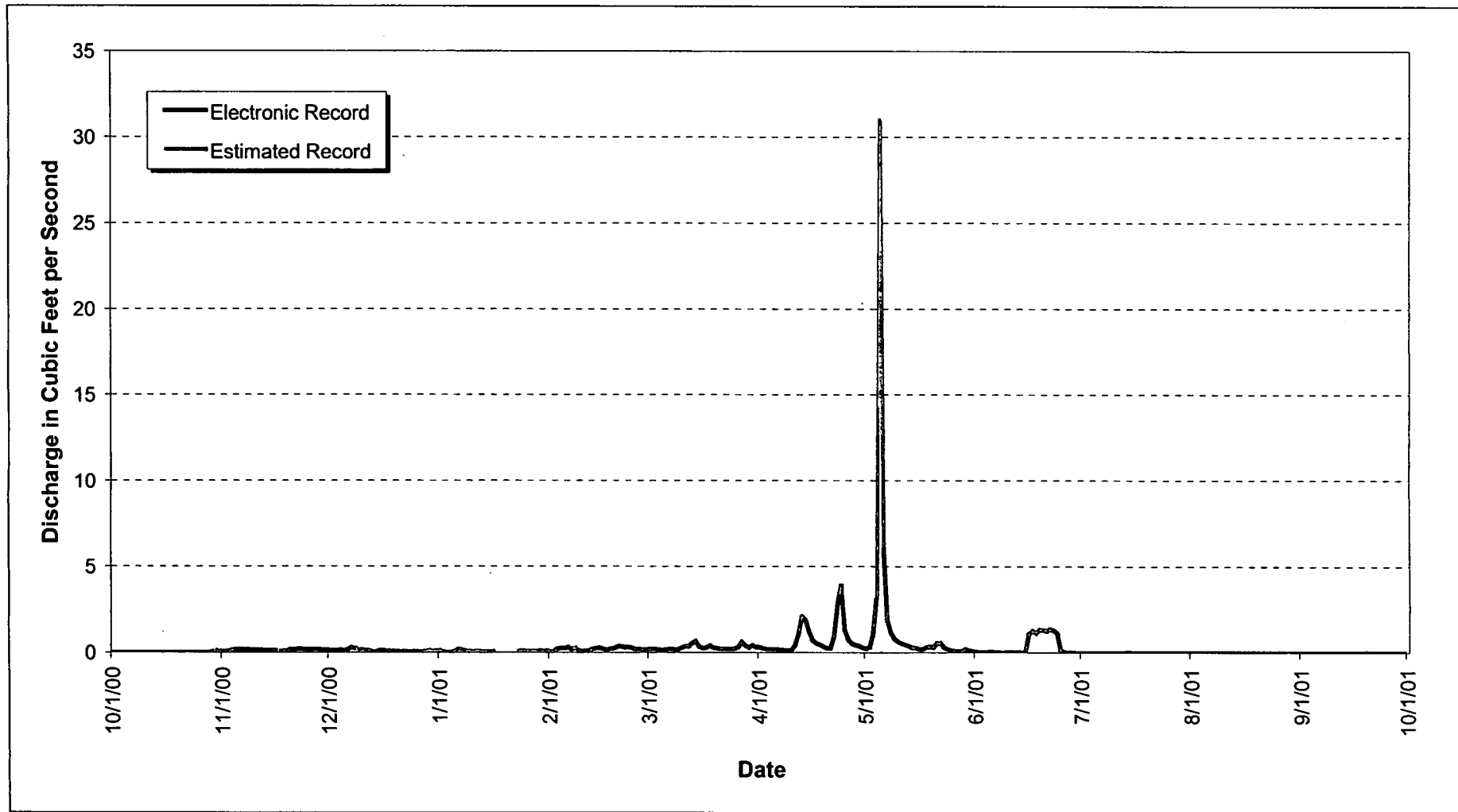


Figure 3-9. WY01 Mean Daily Hydrograph at GS01: Woman Creek at Indiana Street.

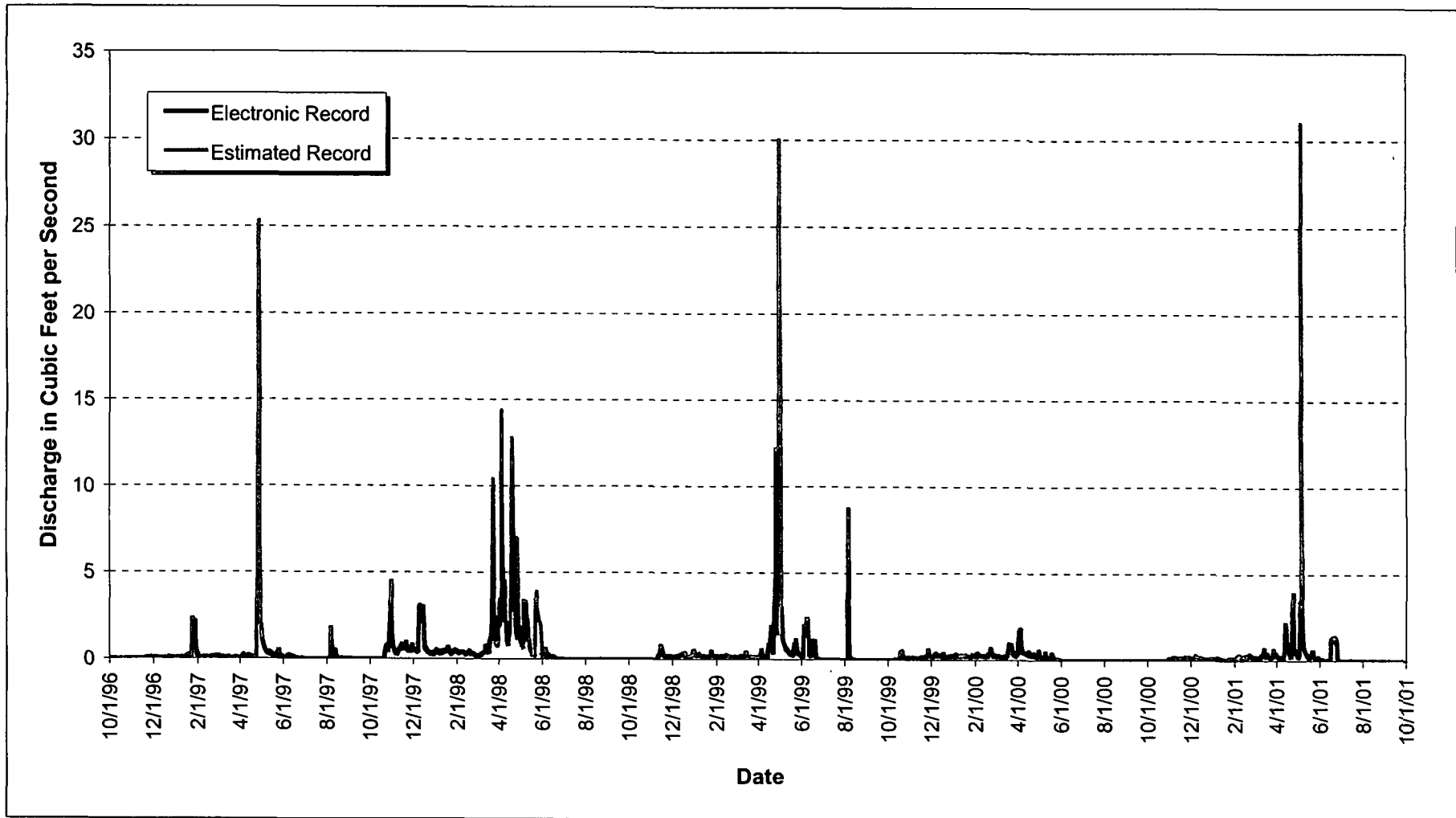


Figure 3-10. WY97-01 Mean Daily Hydrograph at GS01: Woman Creek at Indiana Street.

3.2.4 GS02: Mower Ditch at Indiana Street

Location

Mower Ditch 200' upstream of Indiana Street; State Plane: 2093817; 746302

Drainage Area

- * The basin includes areas upgradient of Mower Ditch (total of 157.7 acres)
- * IA Areas draining to GS02: none

Period of Record

9/16/91 to current year

Gage

Water-stage recorder and 9" Parshall flume; weir insert installed 3/8/99

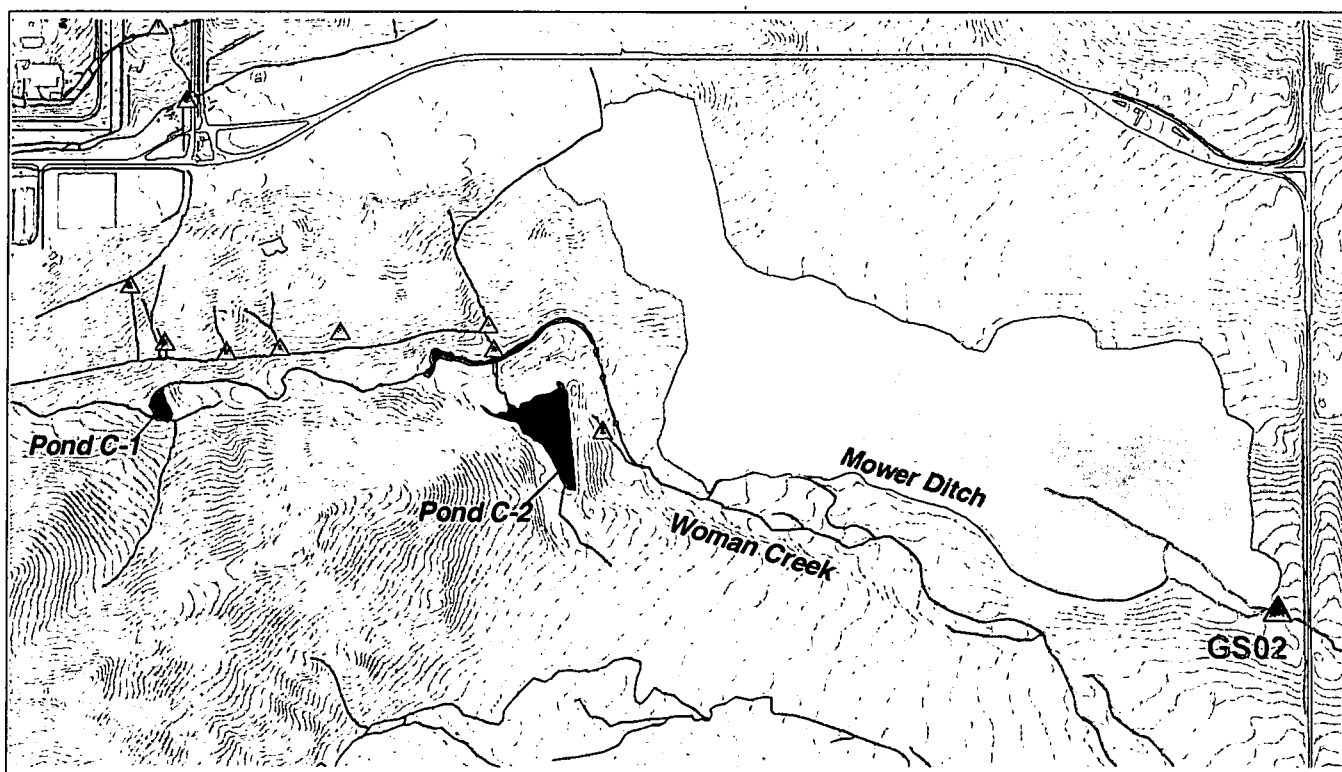


Figure 3-11. Map Showing GS02 Drainage Area.

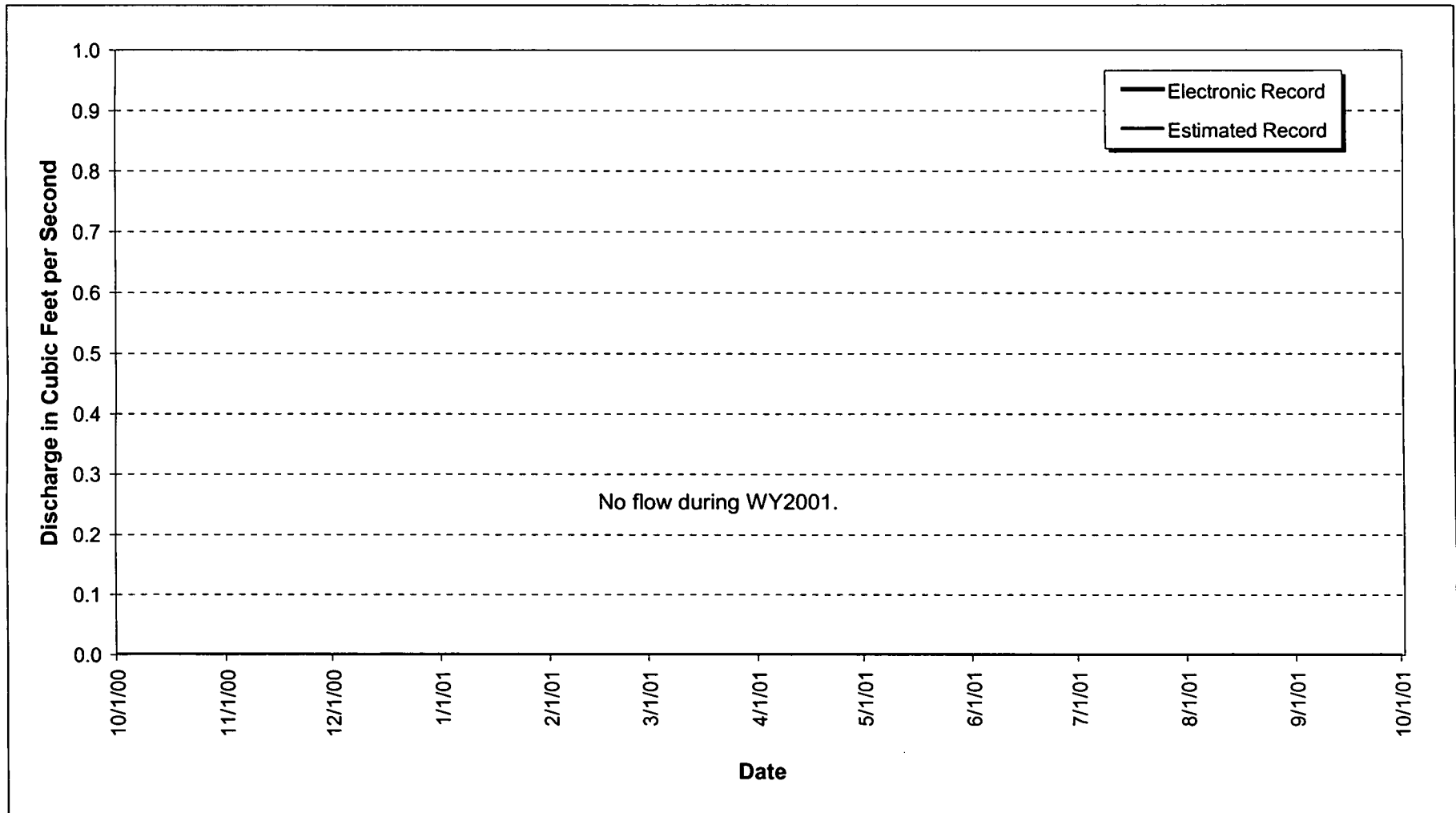


Figure 3-12. WY01 Mean Daily Hydrograph at GS02: Mower Ditch at Indiana Street.

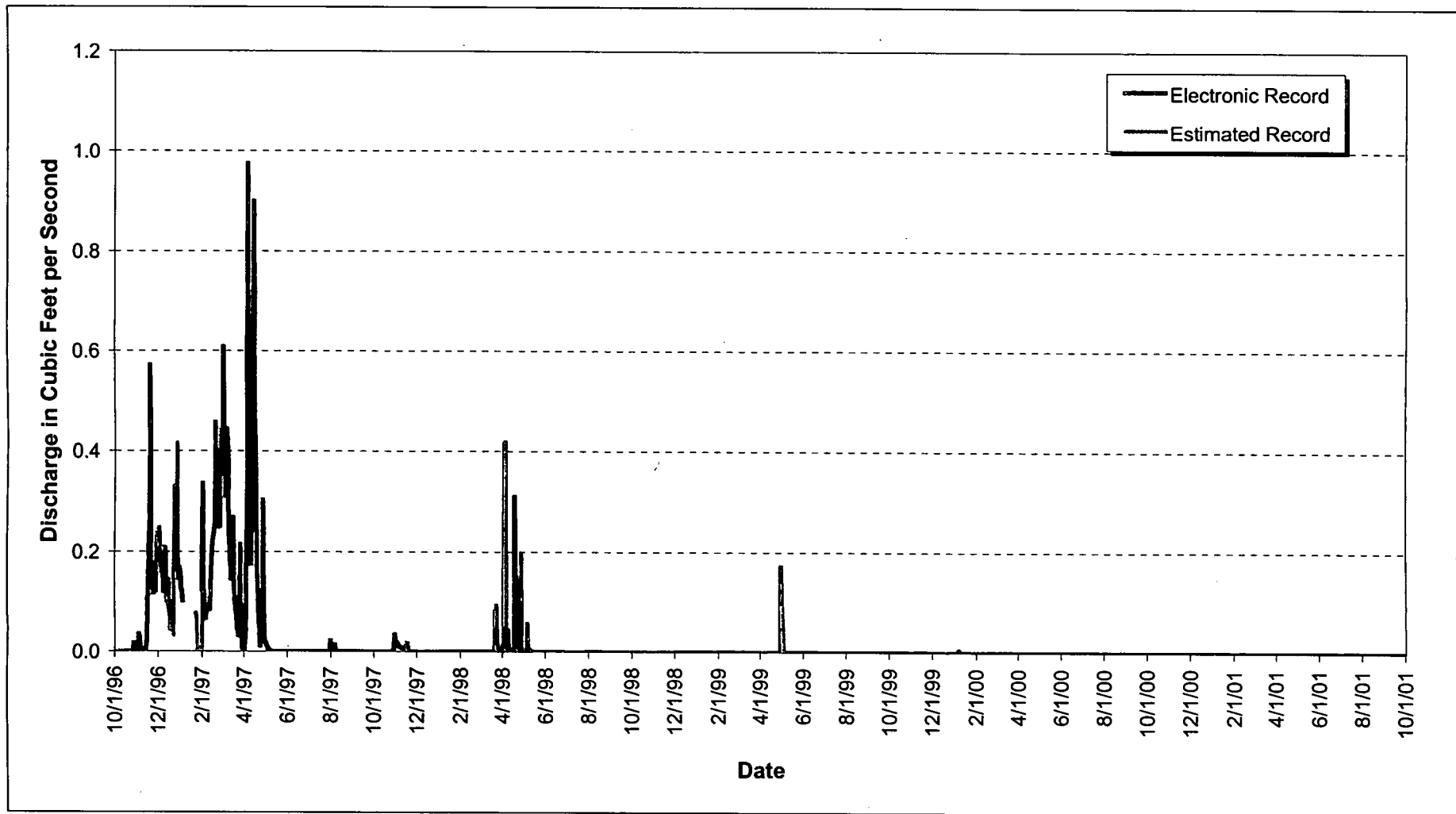


Figure 3-13. WY97-01 Mean Daily Hydrograph at GS02: Mower Ditch at Indiana Street.

3.2.5 GS03: Walnut Creek at Indiana Street

Location

Walnut Creek at Flume Pond outlet upstream of Indiana Street; State Plane: 2093606; 753652

Drainage Area

- * The basin includes the Walnut Cr. drainage and the majority of the IA; areas west of SH93 also contribute runoff (total drainage acreage unknown)
- * IA Areas draining to GS03: all Areas

Period of Record

9/2/91 to current year

Gage

Water-stage recorder and parallel 6" and 36" Parshall flumes

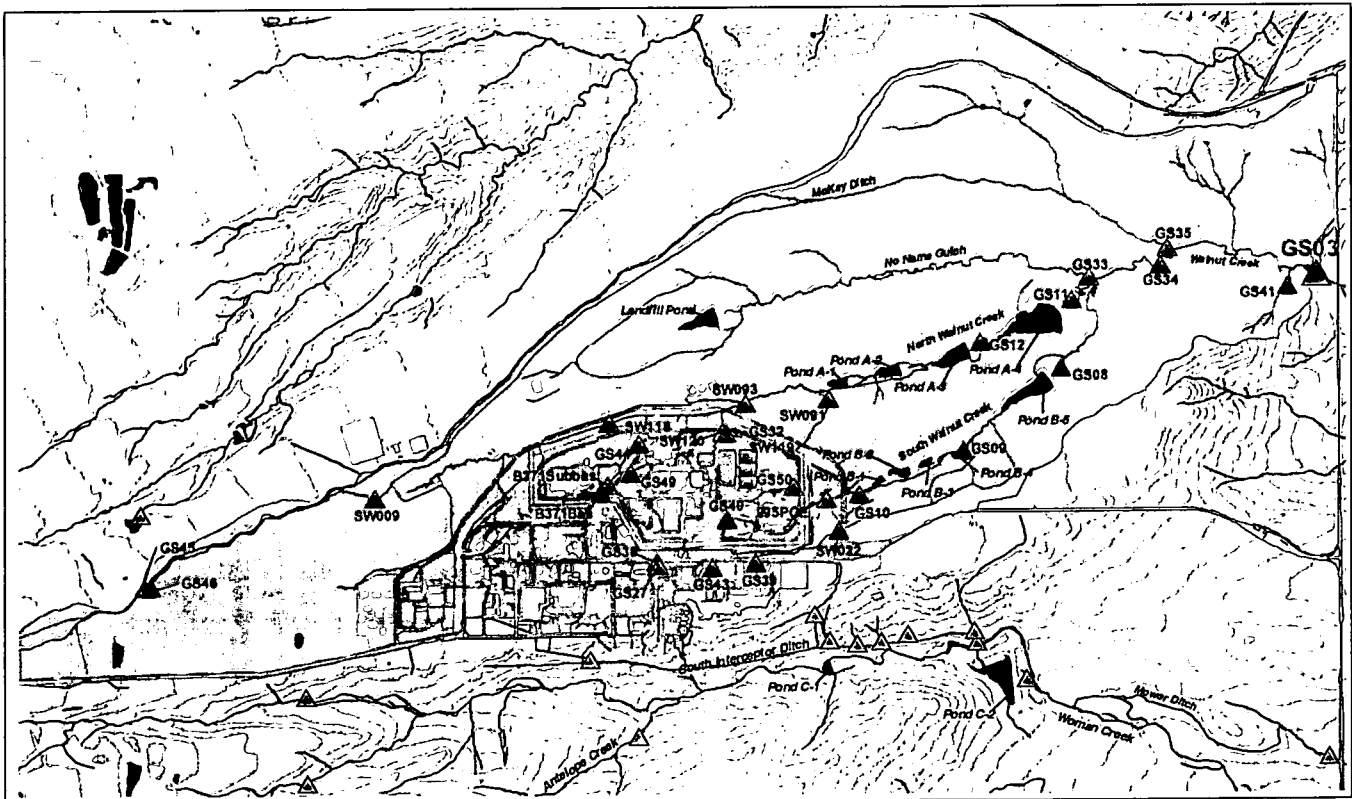


Figure 3-14. Map Showing GS03 Drainage Area.

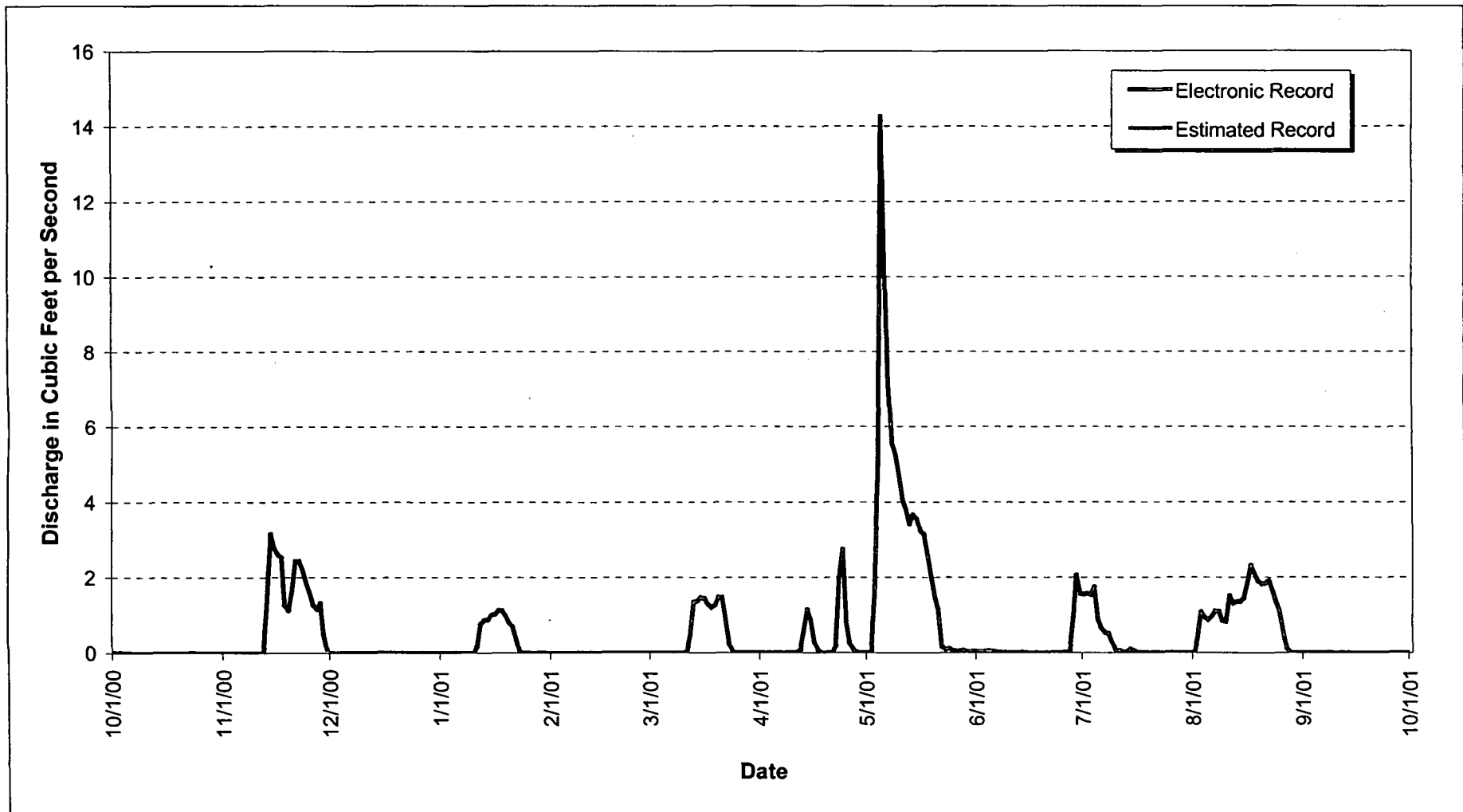


Figure 3-15. WY01 Mean Daily Hydrograph at GS03: Walnut Creek at Indiana Street.

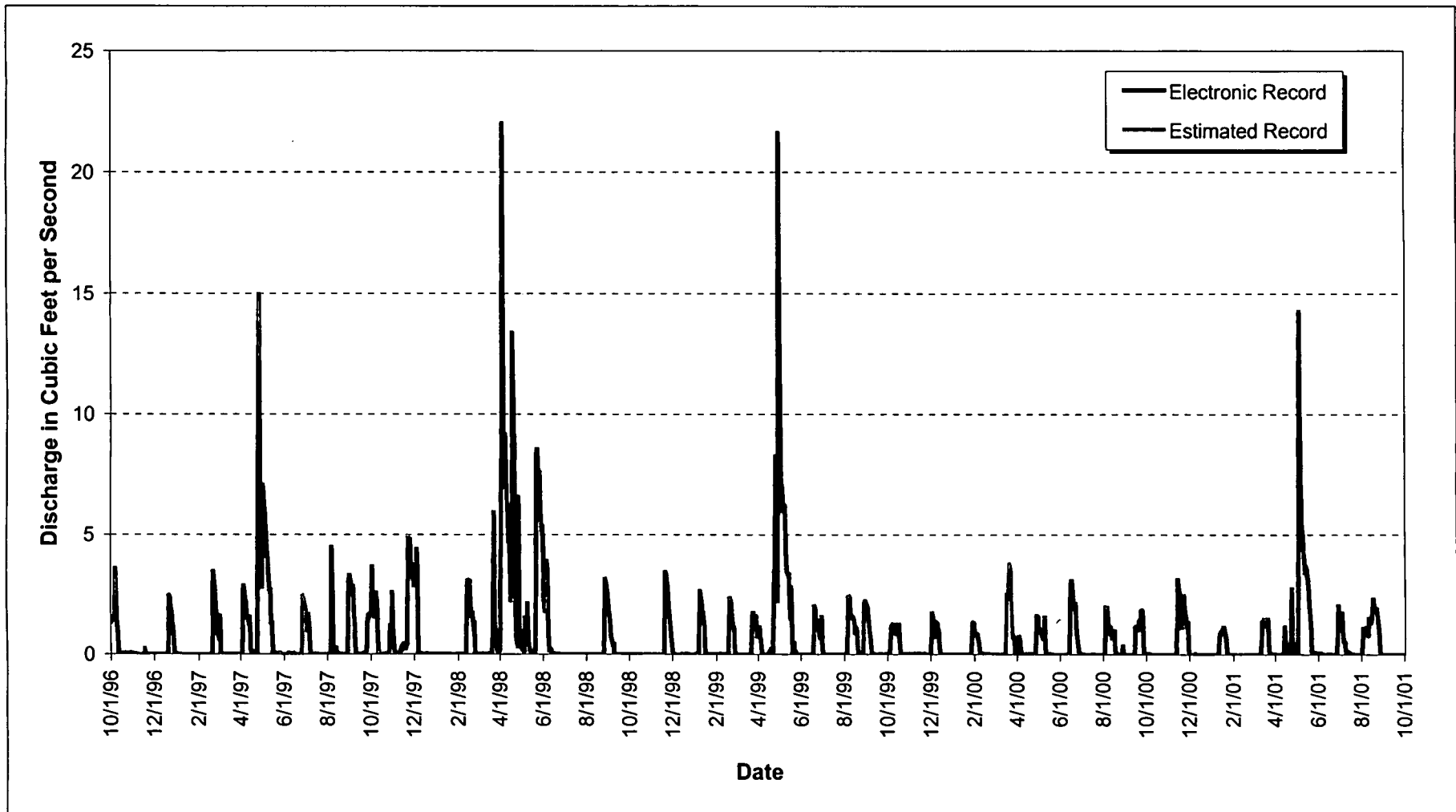


Figure 3-16. WY97-01 Mean Daily Hydrograph at GS03: Walnut Creek at Indiana Street.

3.2.6 GS04: Rock Creek at Highway 128

Location

Rock Creek 200' upstream of box culvert under Route 128; State Plane: 2085568; 758145

Drainage Area

- * The basin includes the Rock Cr. basin; total drainage acreage unknown
- * IA Areas draining to GS04: none

Period of Record

9/27/91 to current year

Gage

Water-stage recorder and 9" Parshall flume; weir insert installed 3/4/99

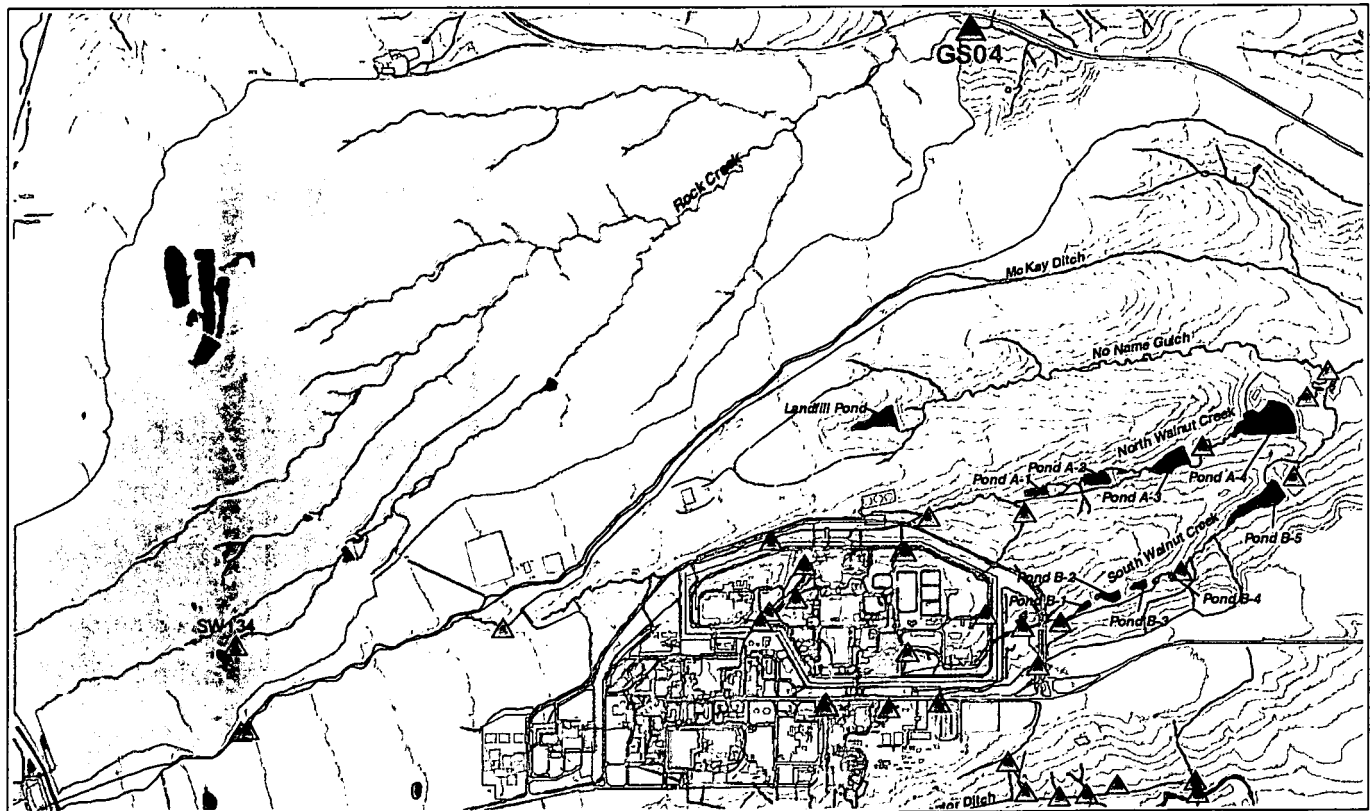


Figure 3-17. Map Showing GS04 Drainage Area.

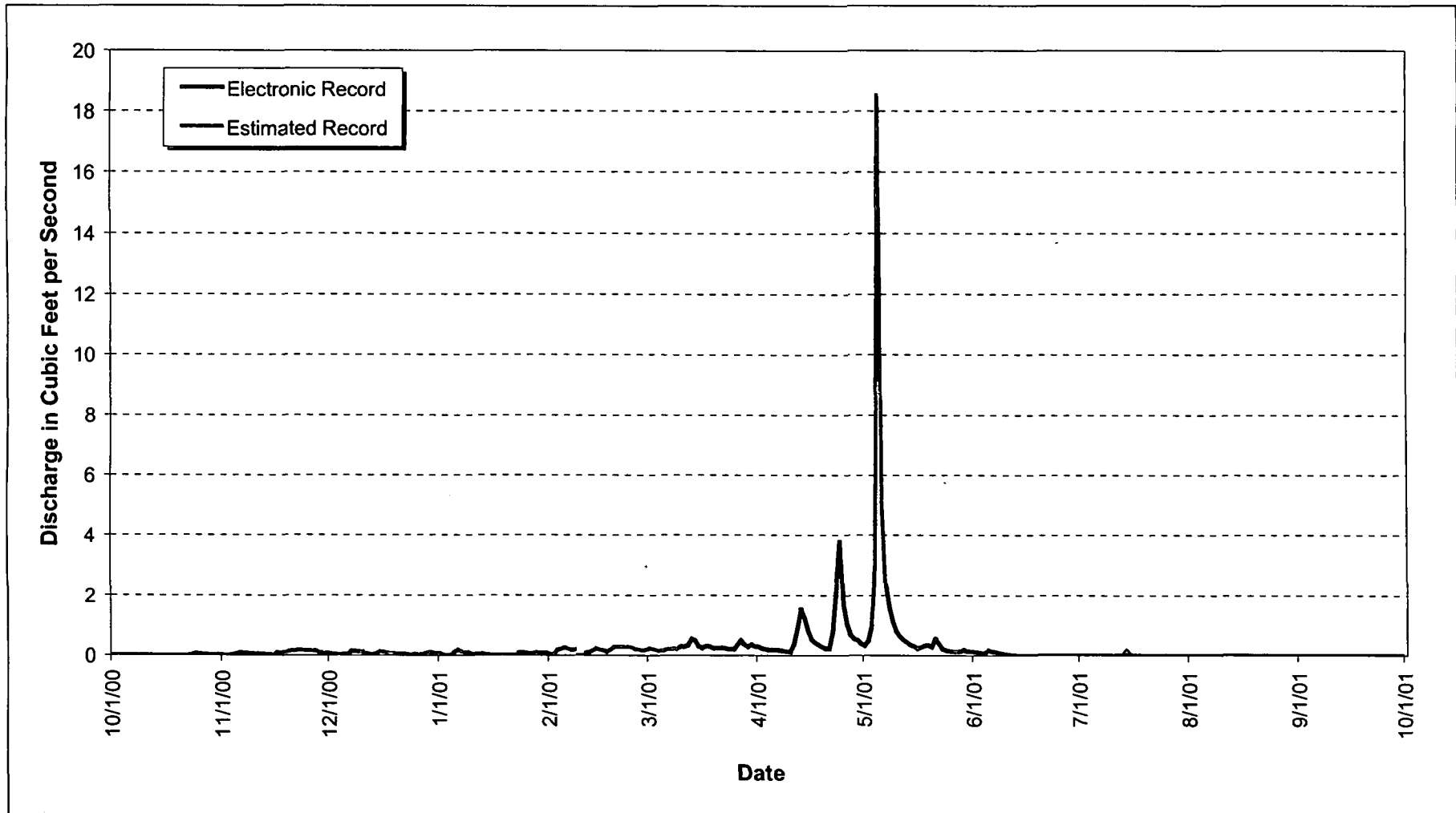


Figure 3-18. WY01 Mean Daily Hydrograph at GS04: Rock Creek at Highway 128.

15

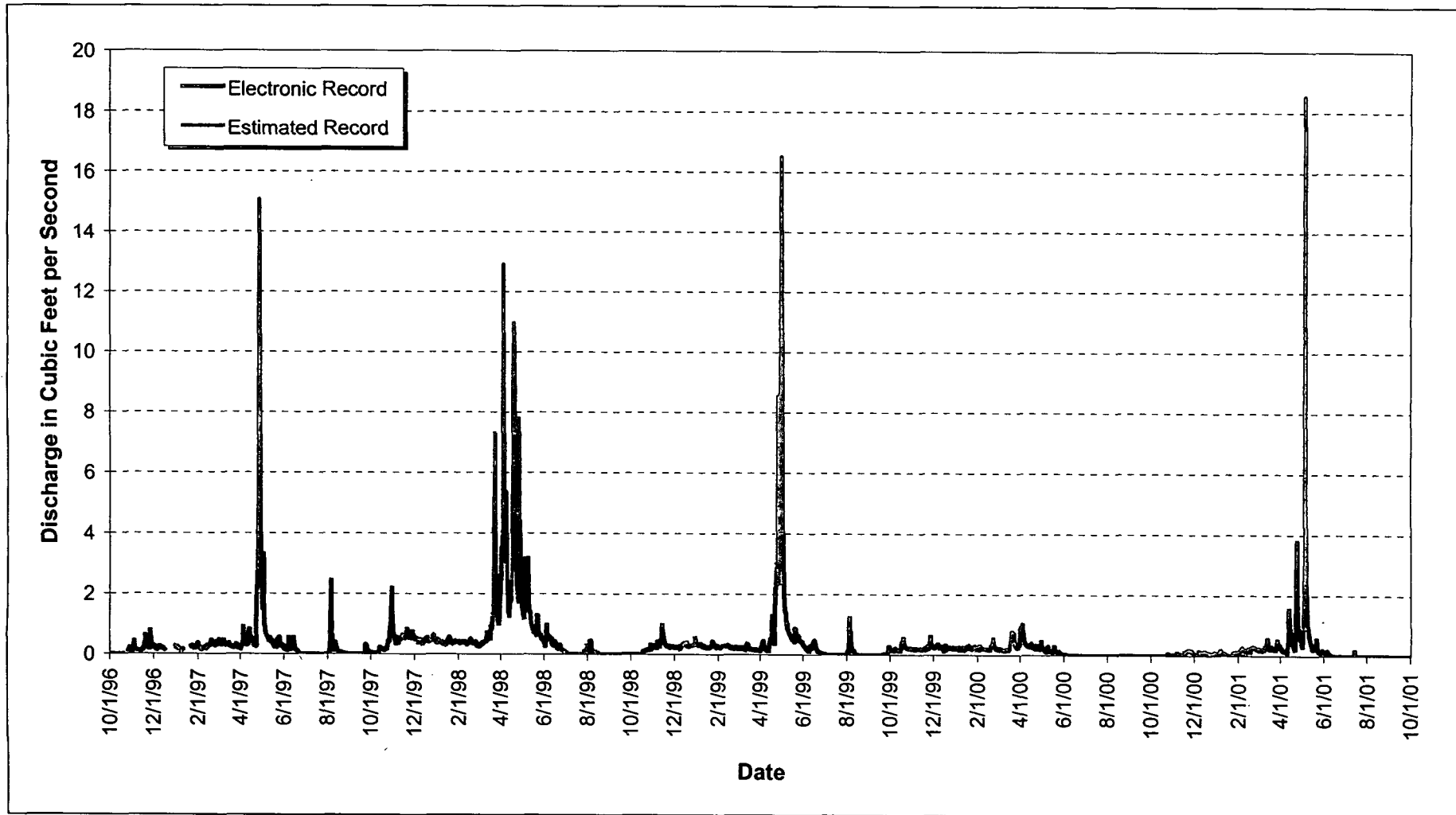


Figure 3-19. WY97-01 Mean Daily Hydrograph at GS04: Rock Creek at Highway 128.

3.2.7 GS05: Woman Creek at West Fenceline

Location

Woman Cr. east of west Site boundary; State Plane: 2078428; 747260

Drainage Area

- * The basin includes a portion of the Woman Cr. drainage; areas west of SH93 also contribute runoff (total drainage acreage unknown)
- * IA Areas draining to GS05: none

Period of Record

9/23/91 to current year

Gage

Water-stage recorder and 9" Parshall flume

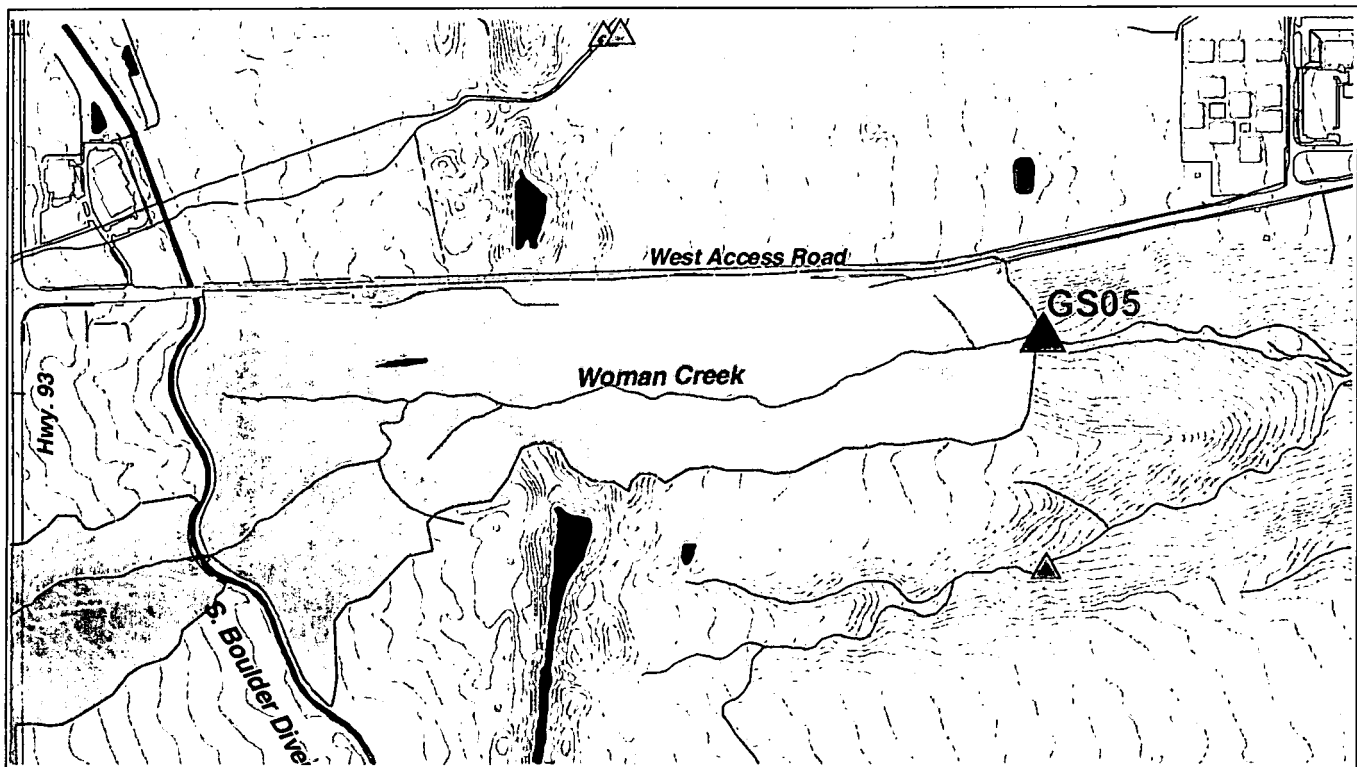


Figure 3-20. Map Showing GS05 Drainage Area.

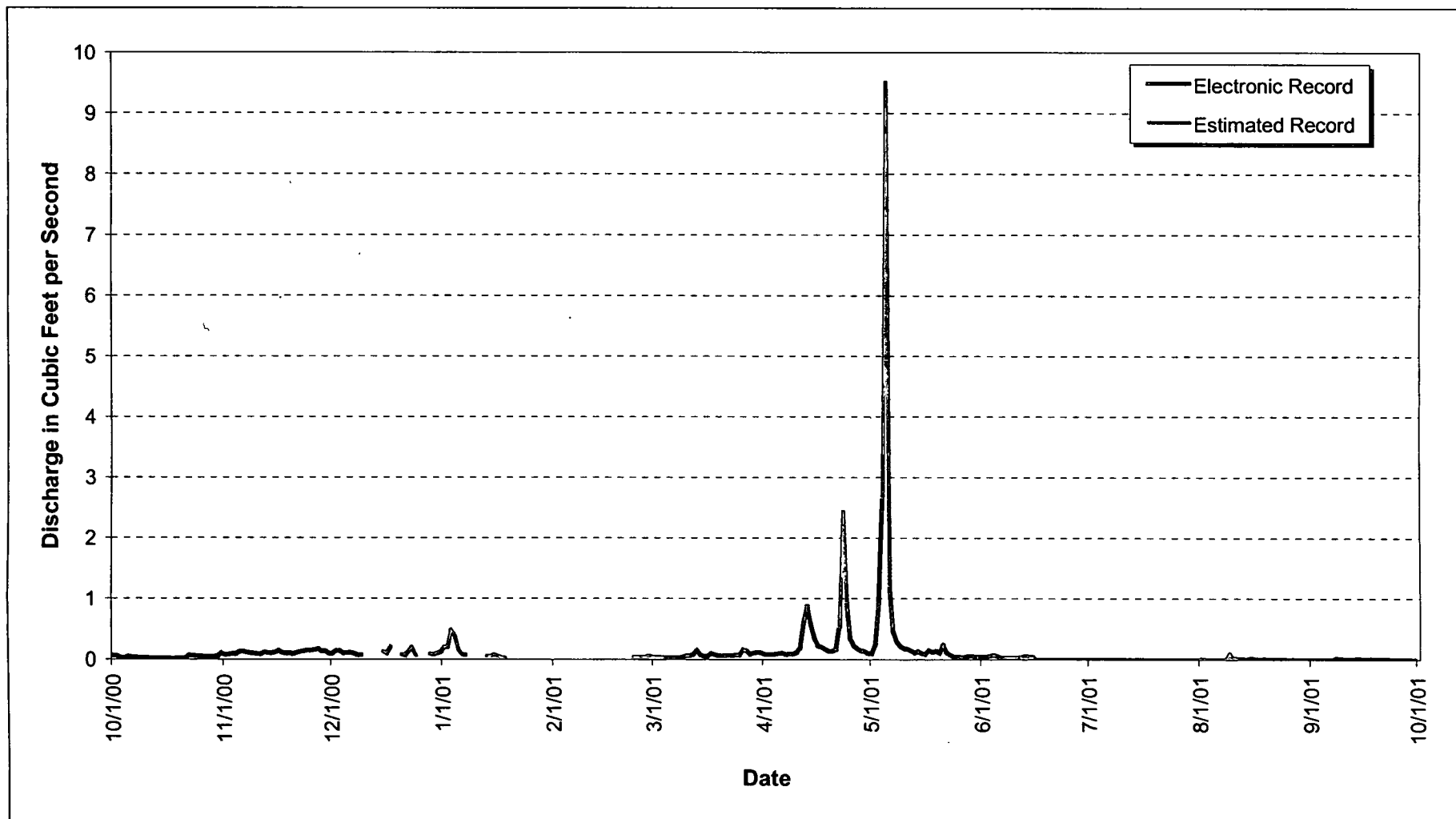


Figure 3-21. WY01 Mean Daily Hydrograph at GS05: North Woman Creek at West Fenceline.

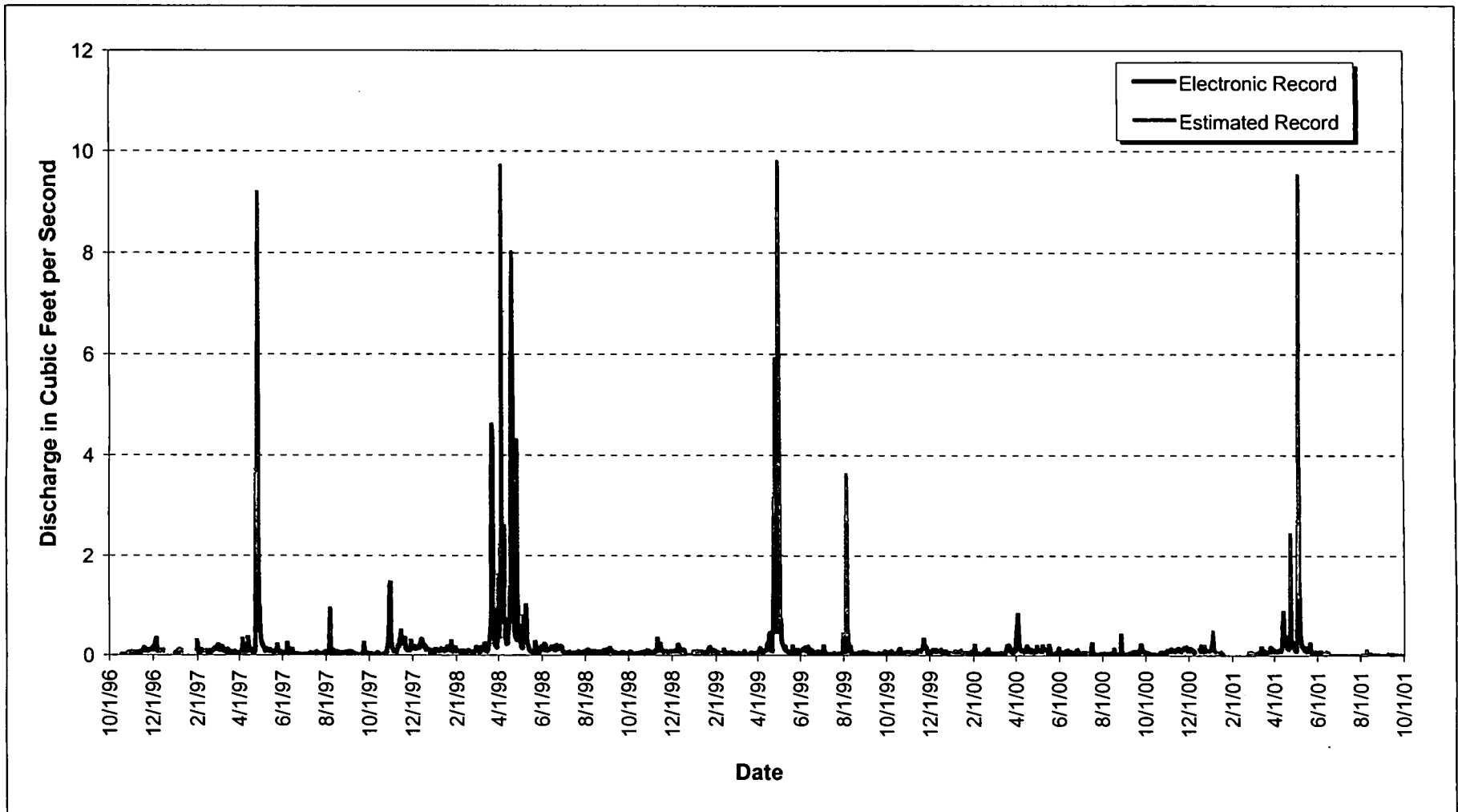


Figure 3-22. WY97-01 Mean Daily Hydrograph at GS05: North Woman Creek at West Fenceline.

3.2.8 GS06: Owl Branch at West Fenceline

Location

Owl Branch east of west Site boundary; State Plane: 2078449; 745968

Drainage Area

- * The basin includes the Owl Branch of Woman Cr. (total drainage acreage unknown)
- * IA Areas draining to GS06: none

Period of Record

9/23/91 to current year

Gage

Water-stage recorder and 6" Parshall flume; weir insert installed 11/13/96

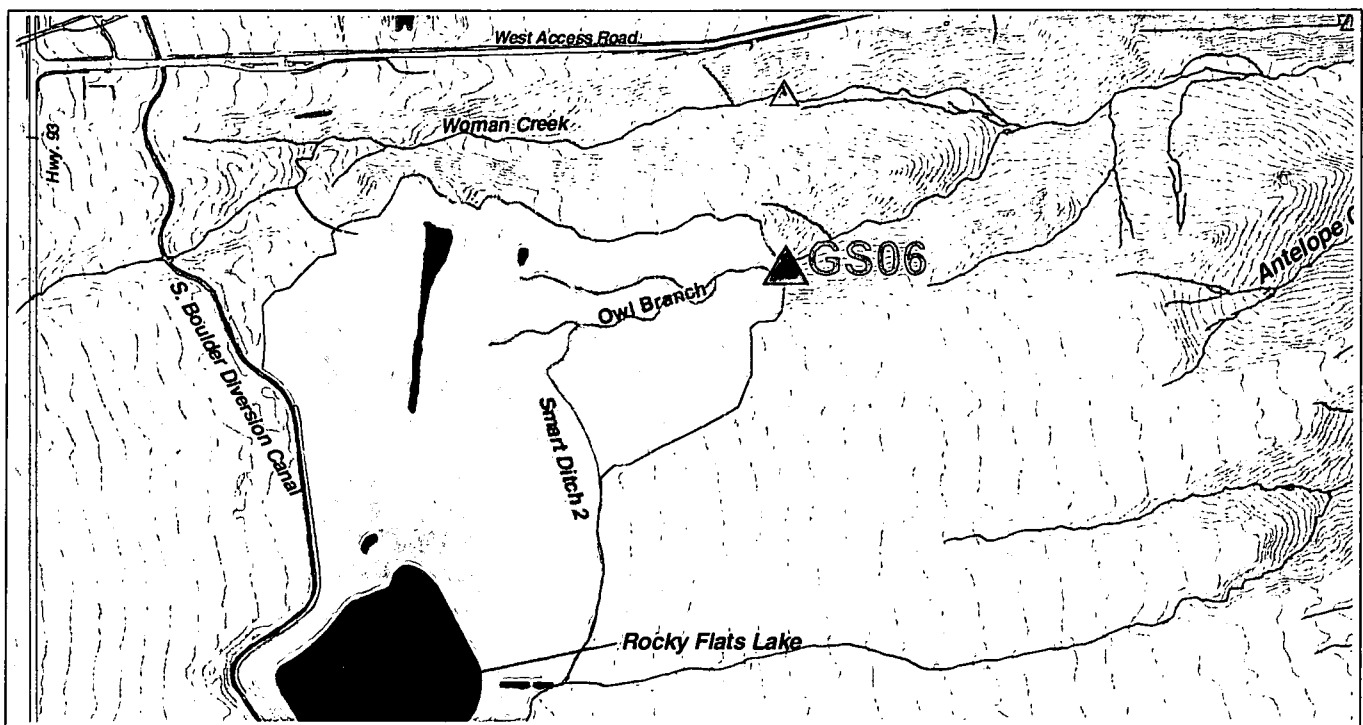


Figure 3-23. Map Showing GS06 Drainage Area.

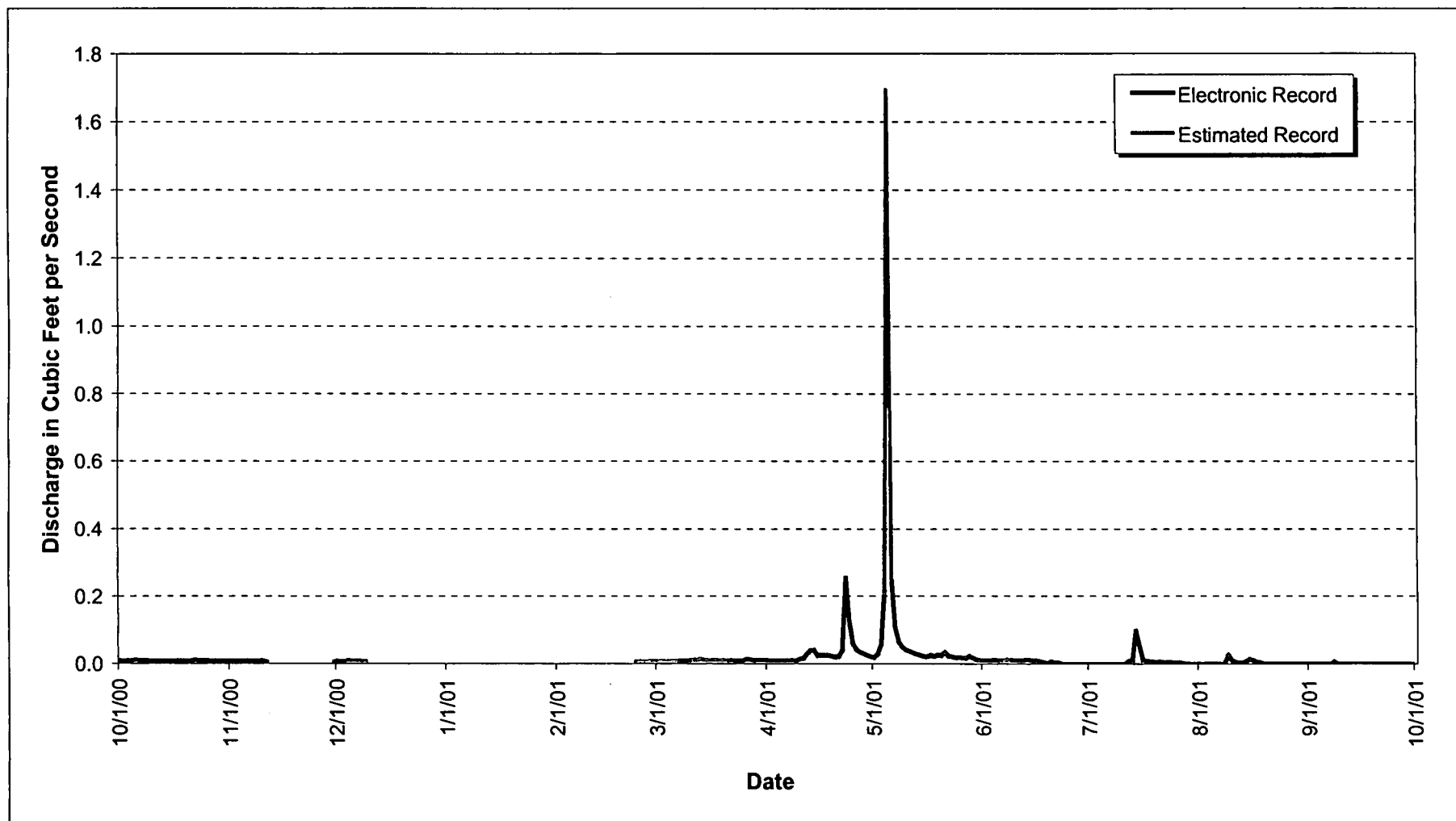


Figure 3-24. WY01 Mean Daily Hydrograph at GS06: South Woman Creek at West Fenceline.

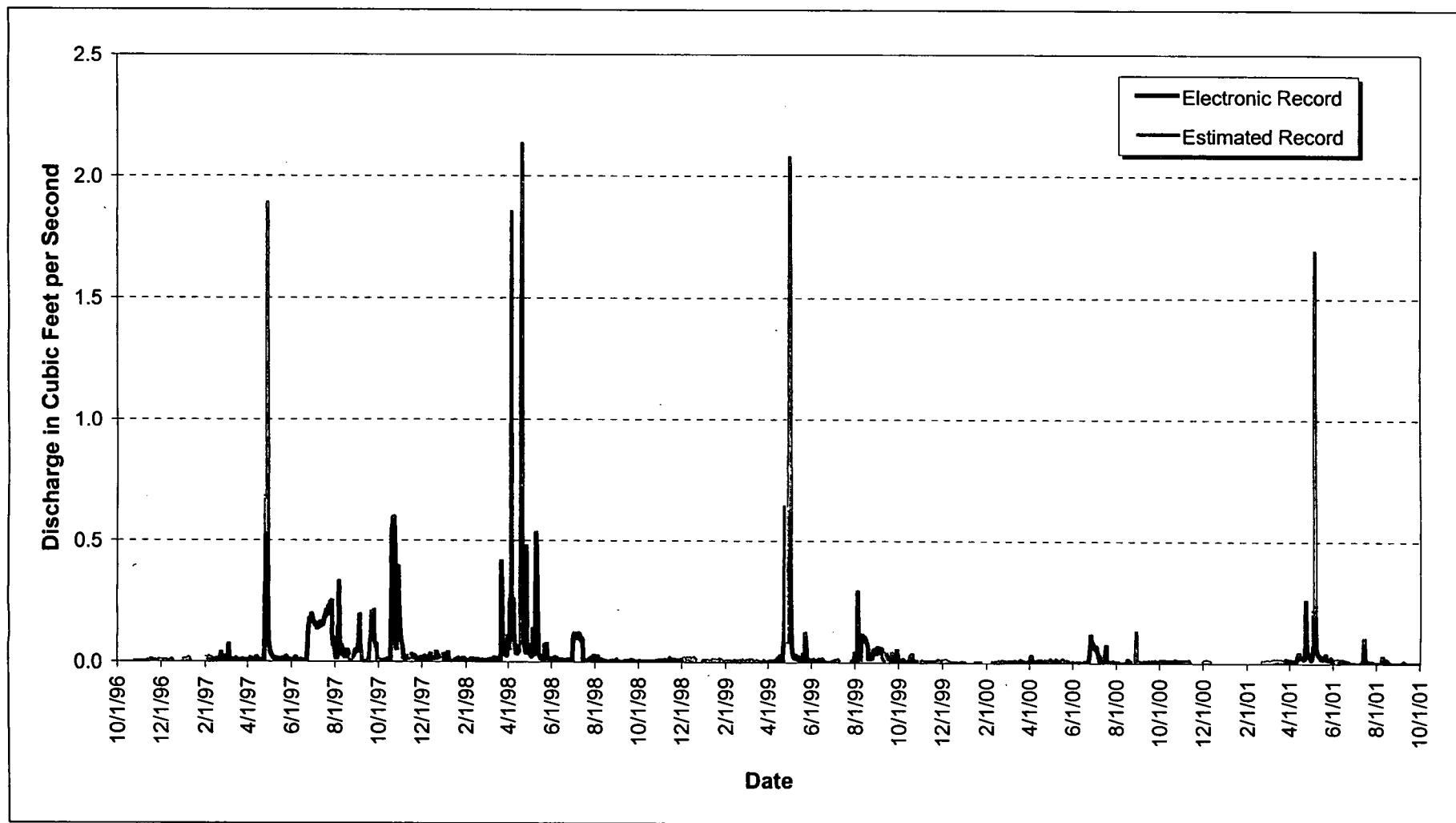


Figure 3-25. WY97-01 Mean Daily Hydrograph at GS06: South Woman Creek at West Fenceline.

3.2.9 GS08: South Walnut Creek at Pond B-5 Outlet

Location

South Walnut Cr. At Pond B-5 outlet; State Plane: 2089779; 752234

Drainage Area

- * The basin includes the S. Walnut Cr. drainage and southern portions of the IA (total of 263.3 acres); Pond B-1 is normally pump transferred to Pond B-2, with Pond B-2 normally pump transferred to Pond A-2
- * IA Areas draining to GS08: 900, 800, 700, 500, 600, 400, 300 and 100

Period of Record

3/23/94 to current year

Gage

Water-stage recorder and 24" Parshall flume

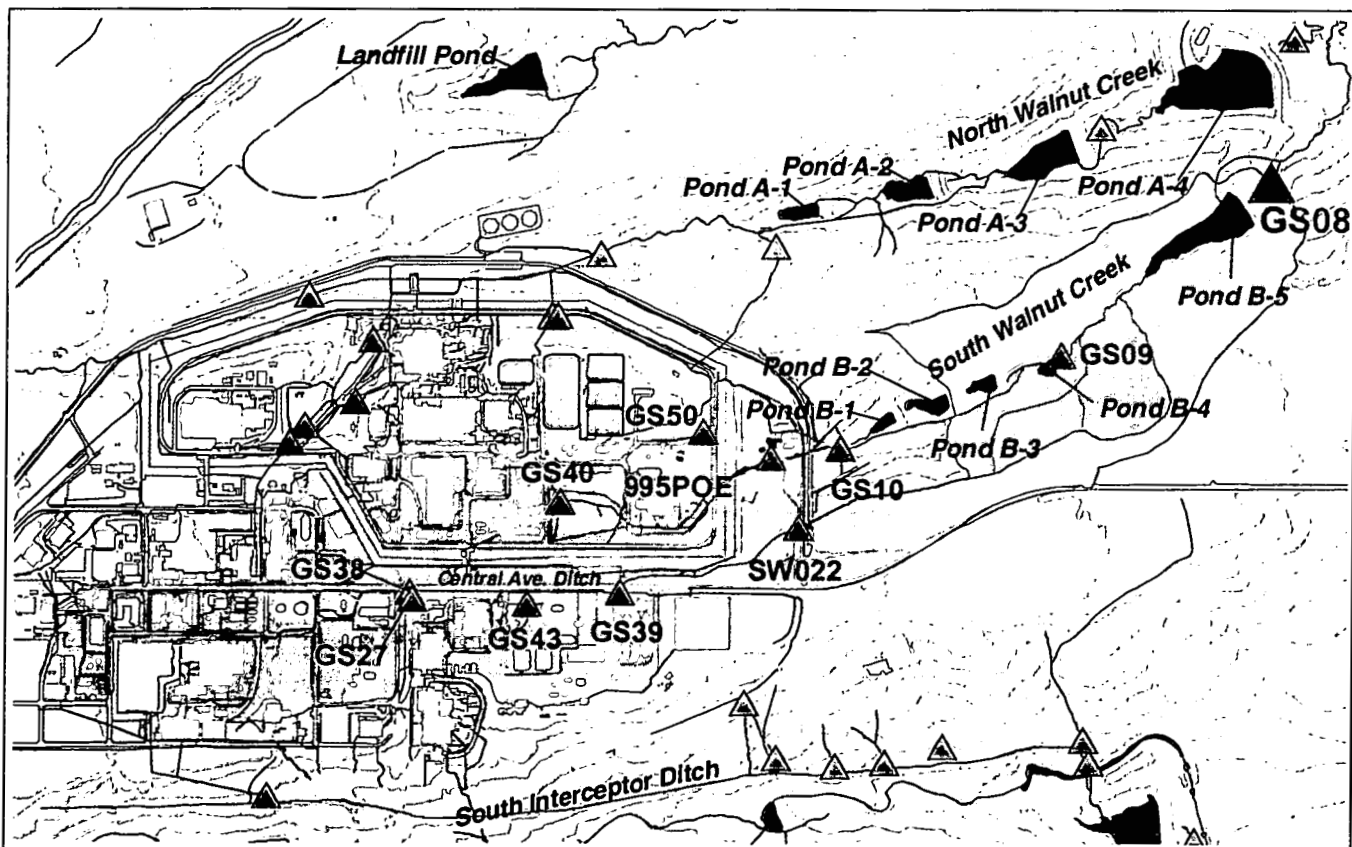


Figure 3-26. Map Showing GS08 Drainage Area.

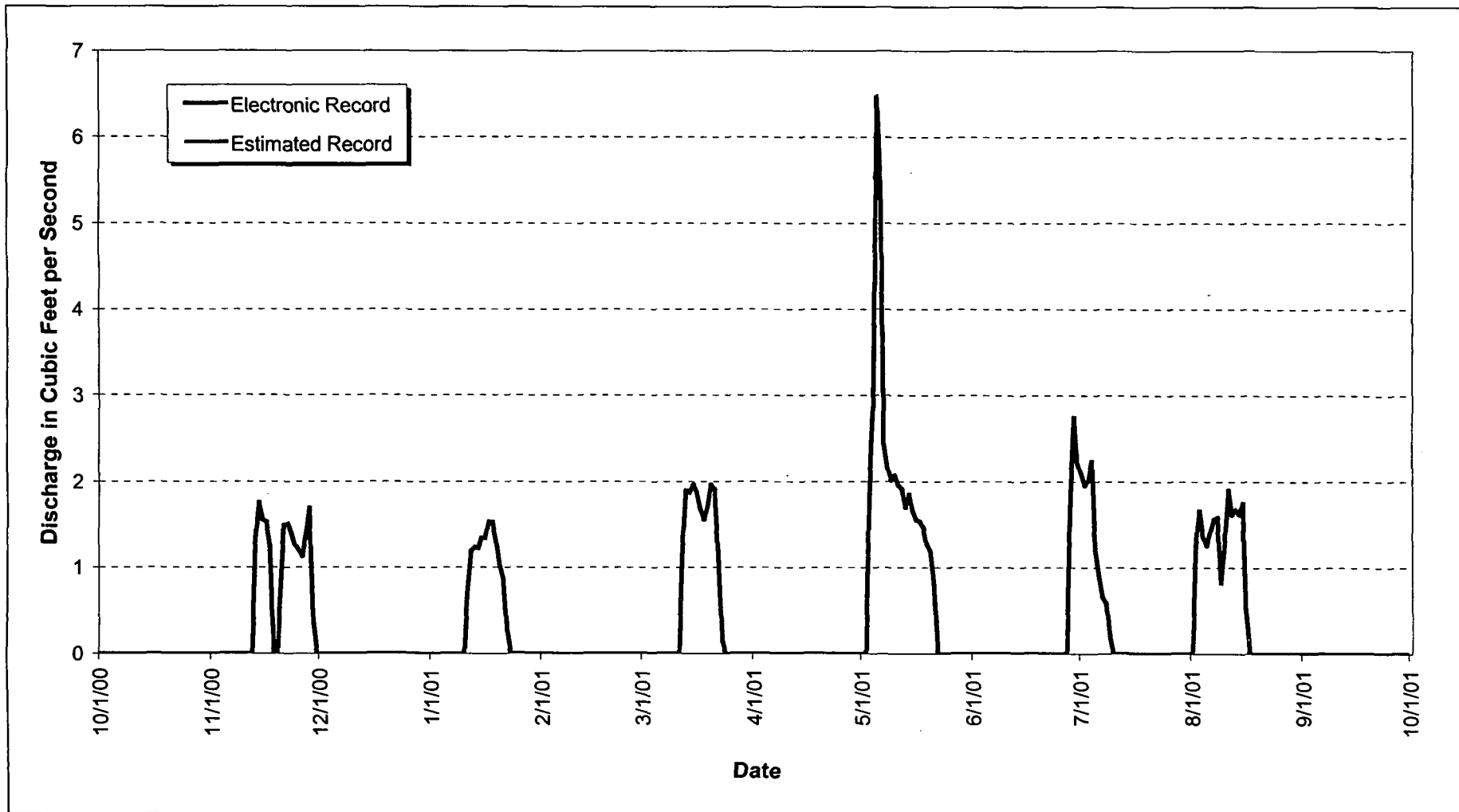


Figure 3-27. WY01 Mean Daily Hydrograph at GS08: South Walnut Creek at Pond B-5 Outlet.

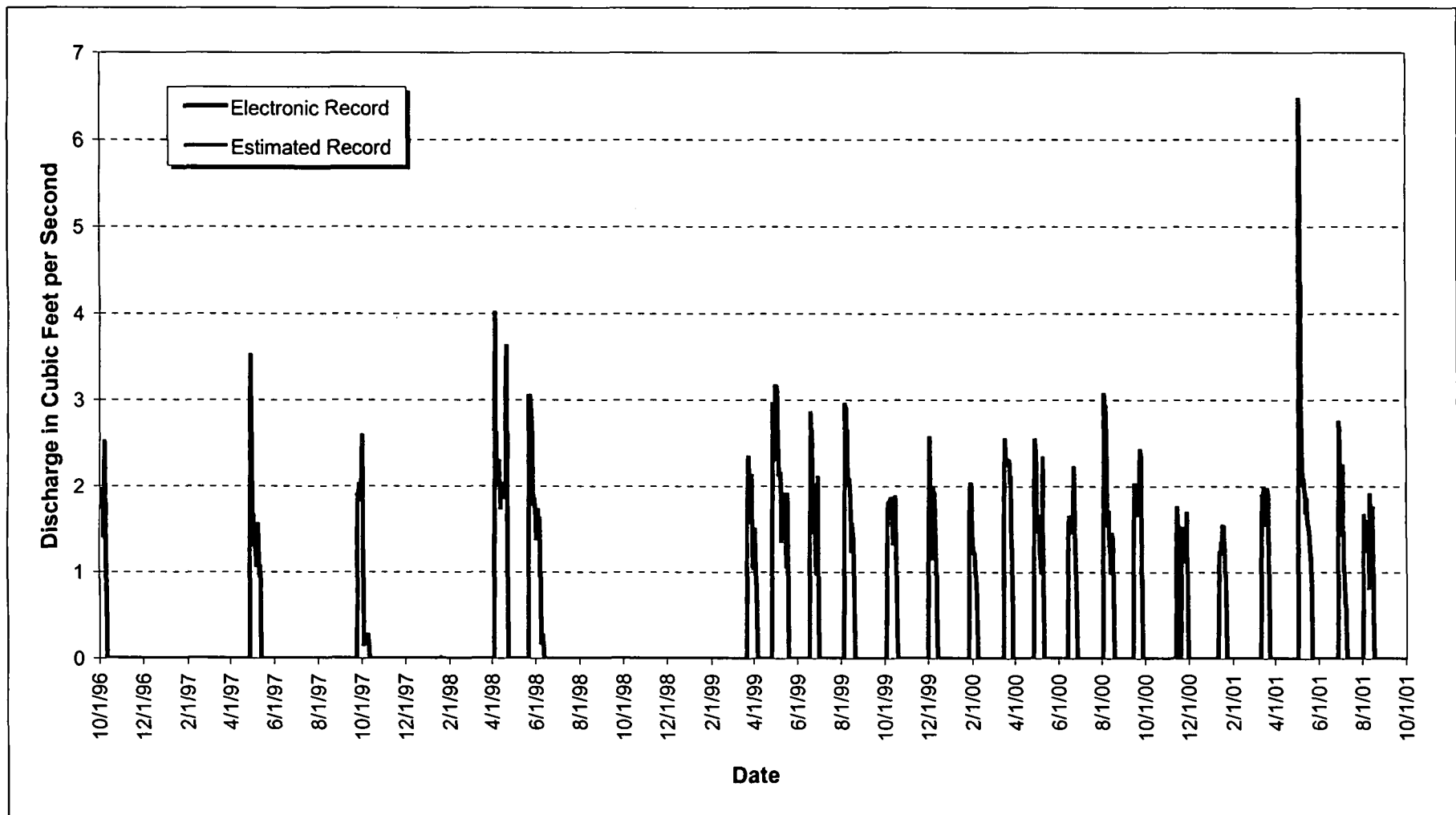


Figure 3-28. WY97-01 Mean Daily Hydrograph at GS08: South Walnut Creek at Pond B-5 Outlet.

3.2.10 GS10: South Walnut Creek at B-1 Bypass

Location

South Walnut Cr. above B-1 Bypass; State Plane: 2086741, 750326

Drainage Area

- * The basin includes the central and southern portions of the IA (total of 167.2 acres)
- * IA Areas draining to GS10: 900, 800, 700, 600, 500, 400, 300, and 100

Period of Record

4/1/93 to current year

Gage

Water-stage recorder and 9" Parshall flume

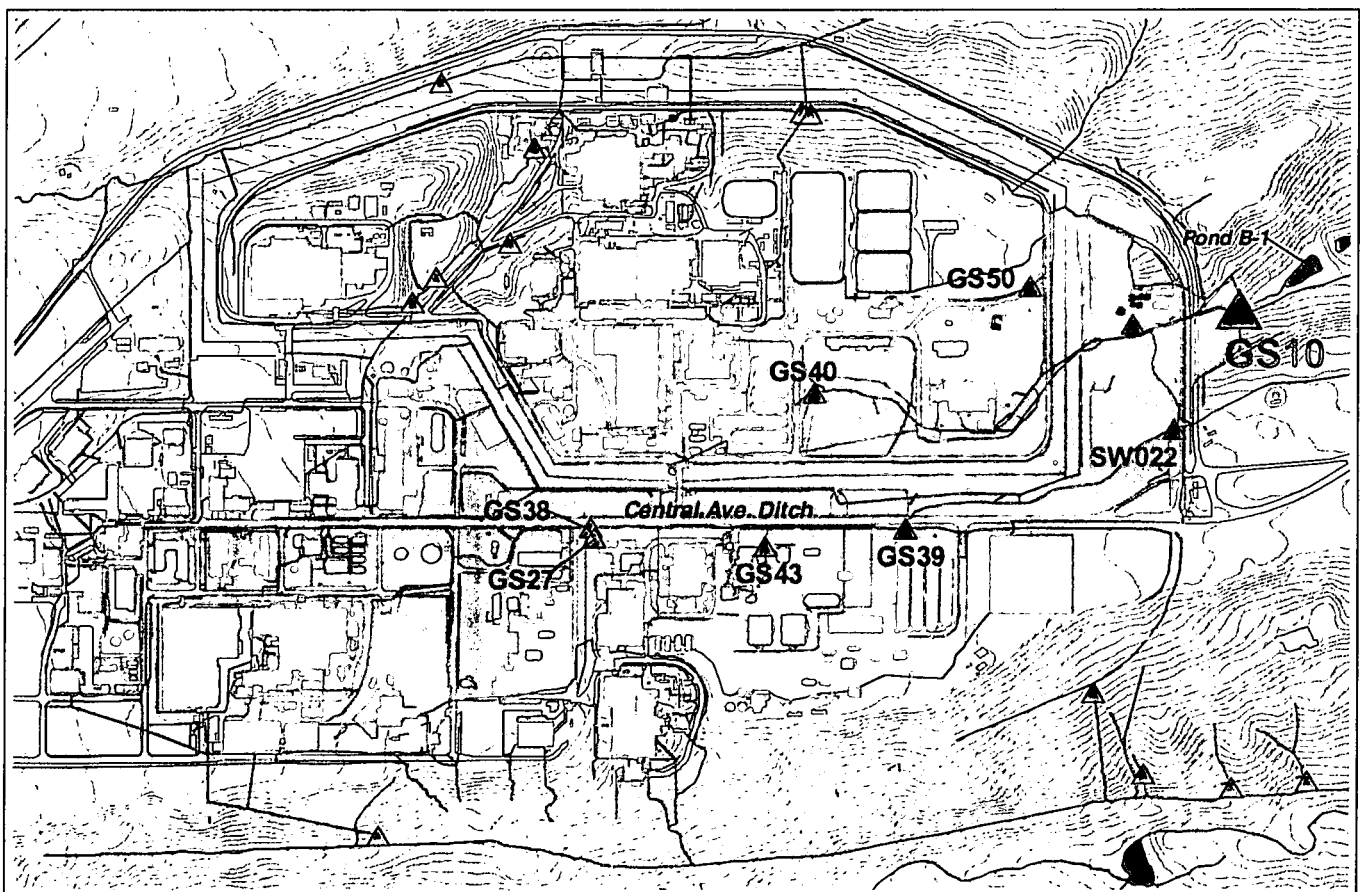


Figure 3-29. Map Showing GS10 Drainage Area.

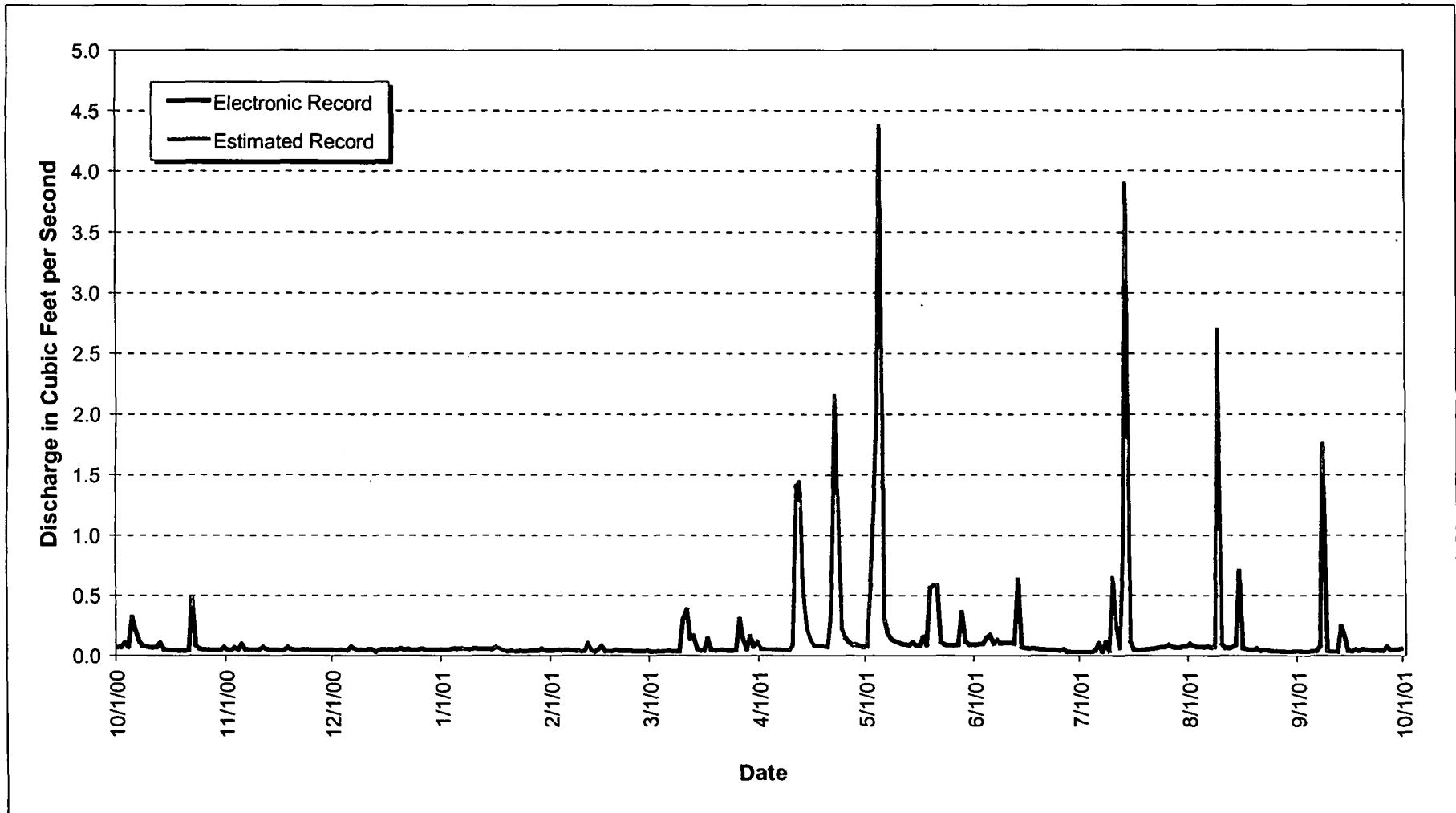


Figure 3-30. WY01 Mean Daily Hydrograph at GS10: South Walnut Creek at B-1 Bypass.

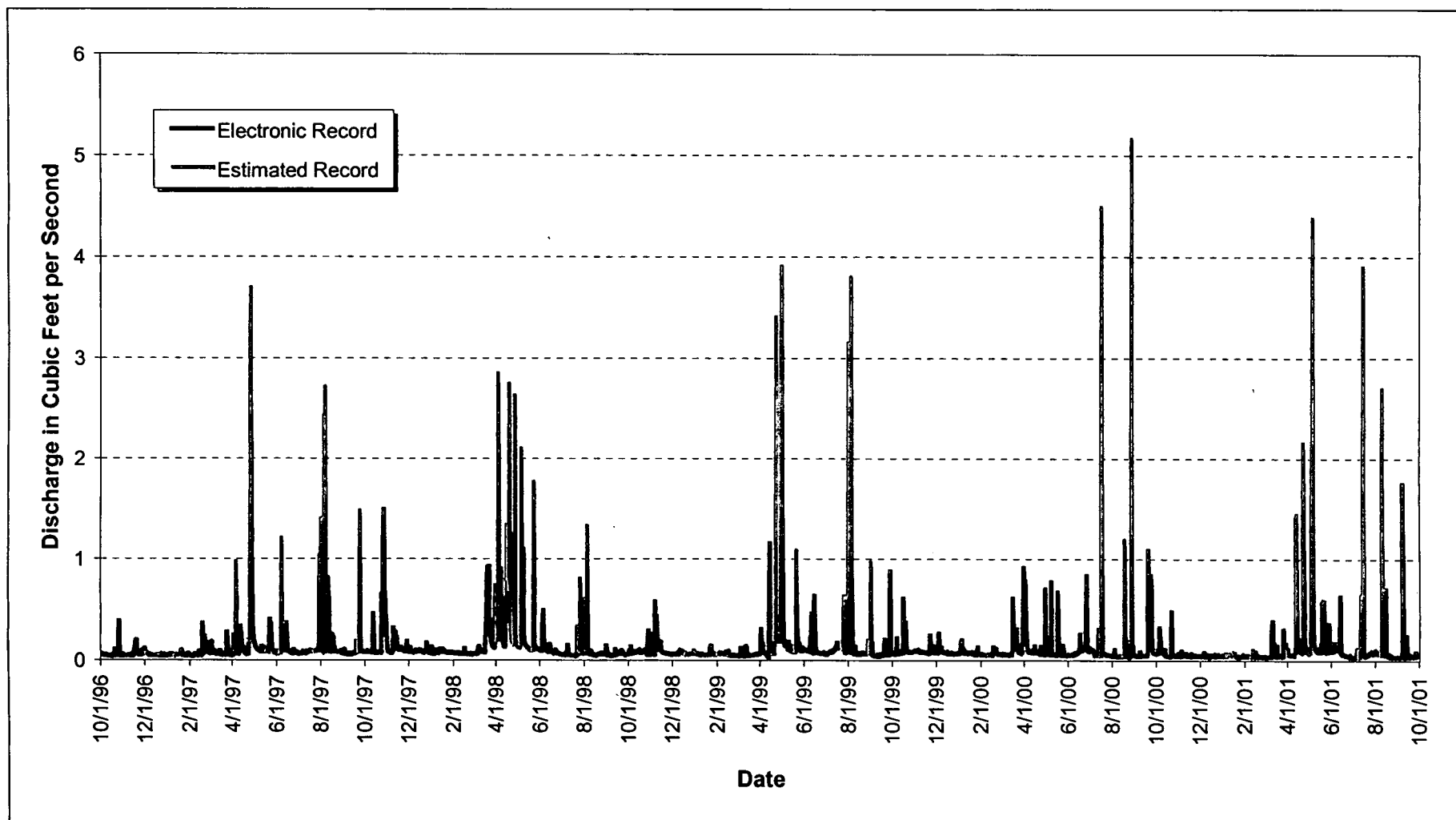


Figure 3-31. WY97-01 Mean Daily Hydrograph at GS10: South Walnut Creek at B-1 Bypass.

3.2.11 GS11: North Walnut Creek at Pond A-4 Outlet

Location

N. Walnut Cr. at Pond A-4 outlet; State Plane: 2089934, 753267

Drainage Area

* The basin includes the N. Walnut Cr. drainage, the Landfill Pond (pump transferred to A-Series ponds), Ponds B-1 and B-2 (normally pump transferred to Pond A-2), and northern portions of the IA (total of 467.6 acres)

* IA Areas draining to GS11: 900, 700, 300, and 100

Period of Record

5/12/92 to current year

Gage

Water-stage recorder and 24" Parshall flume

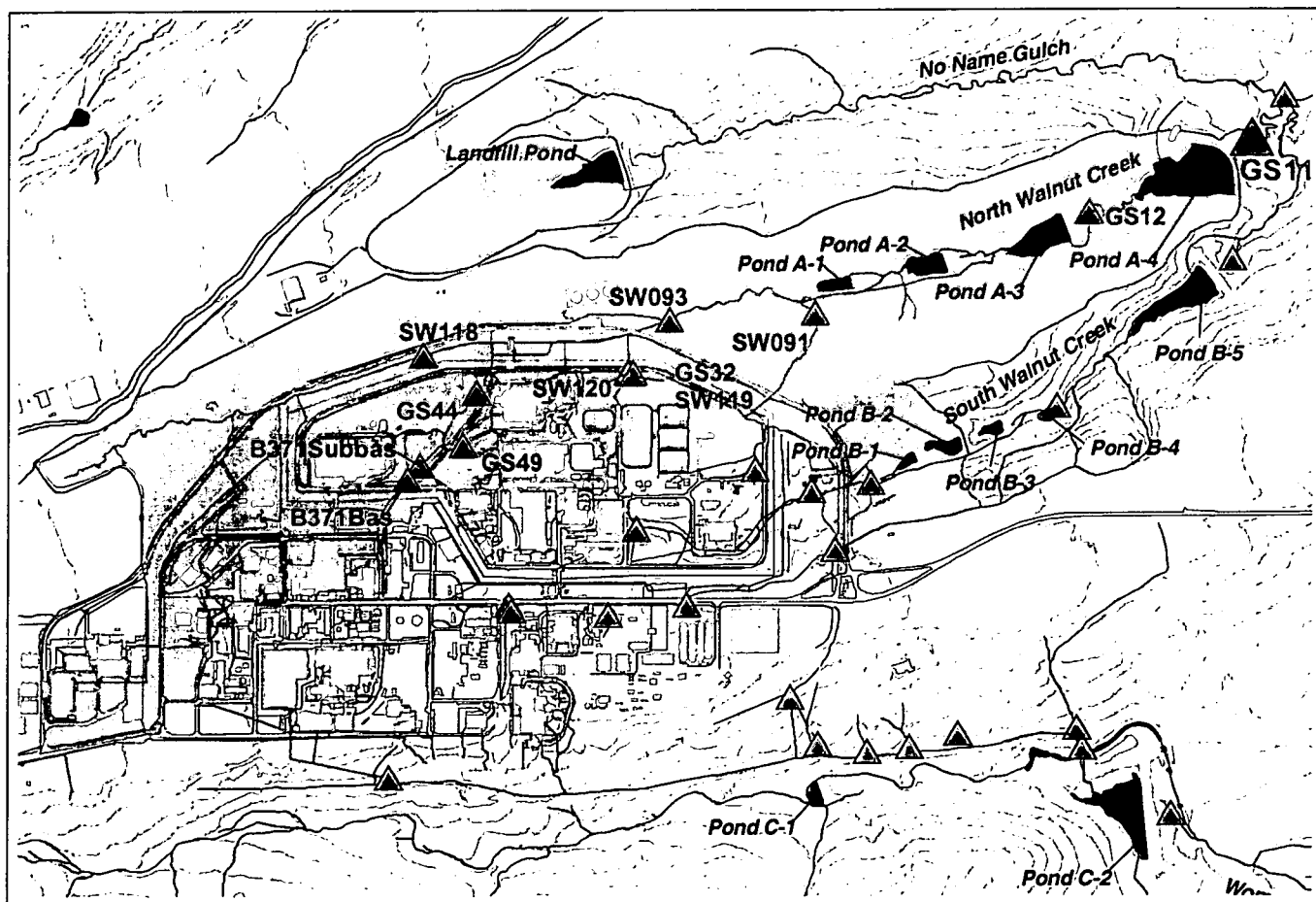


Figure 3-32. Map Showing GS11 Drainage Area.

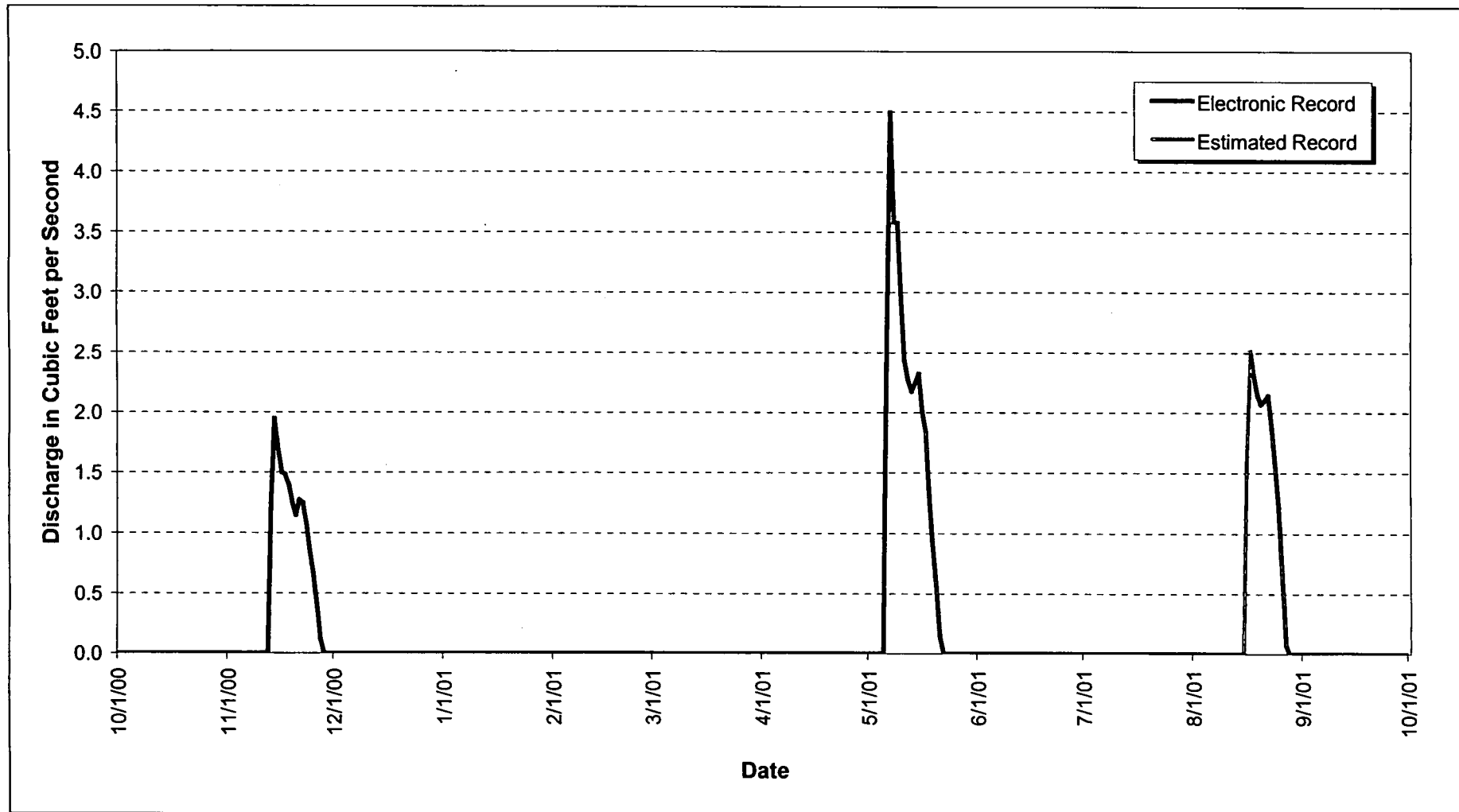


Figure 3-33. WY01 Mean Daily Hydrograph at GS11: North Walnut Creek at Pond A-4 Outlet.

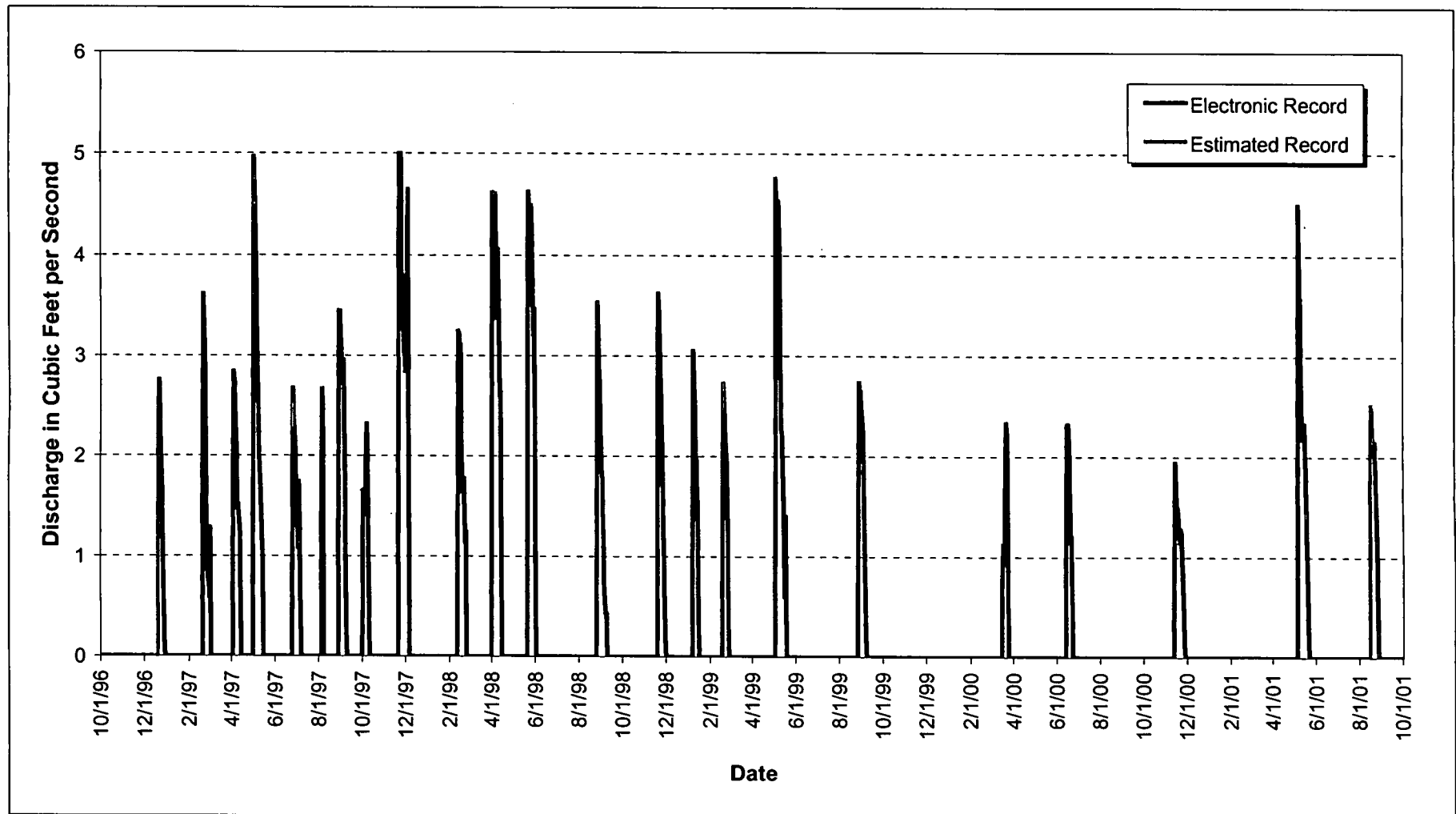


Figure 3-34. WY97-01 Mean Daily Hydrograph at GS11: North Walnut Creek at Pond A-4 Outlet.

3.2.12 GS12: North Walnut Creek at Pond A-3 Outlet

Location

N. Walnut Cr. at Pond A-3 outlet; State Plane: 2088569, 752633

Drainage Area

* The basin includes the N. Walnut Cr. drainage, the Landfill Pond (pump transferred to A-Series ponds), Ponds B-1 and B-2 (normally pump transferred to Pond A-2), and northern portions of the IA (total of 433.3 acres)

* IA Areas draining to GS12: 900, 700, 300, and 100

Period of Record

5/13/92 to current year

Gage

Water-stage recorder and 30" Parshall flume

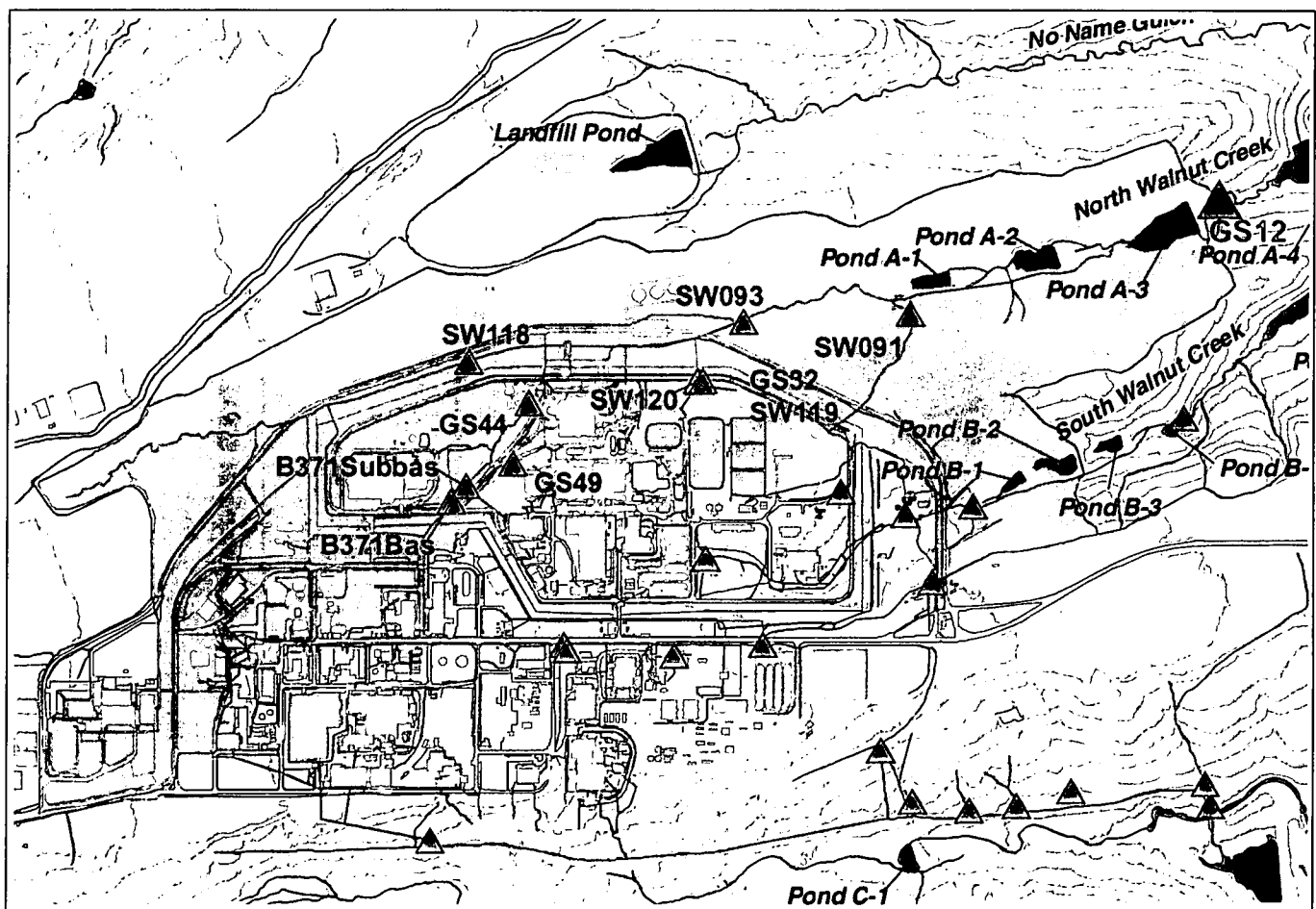


Figure 3-35. Map Showing GS12 Drainage Area.

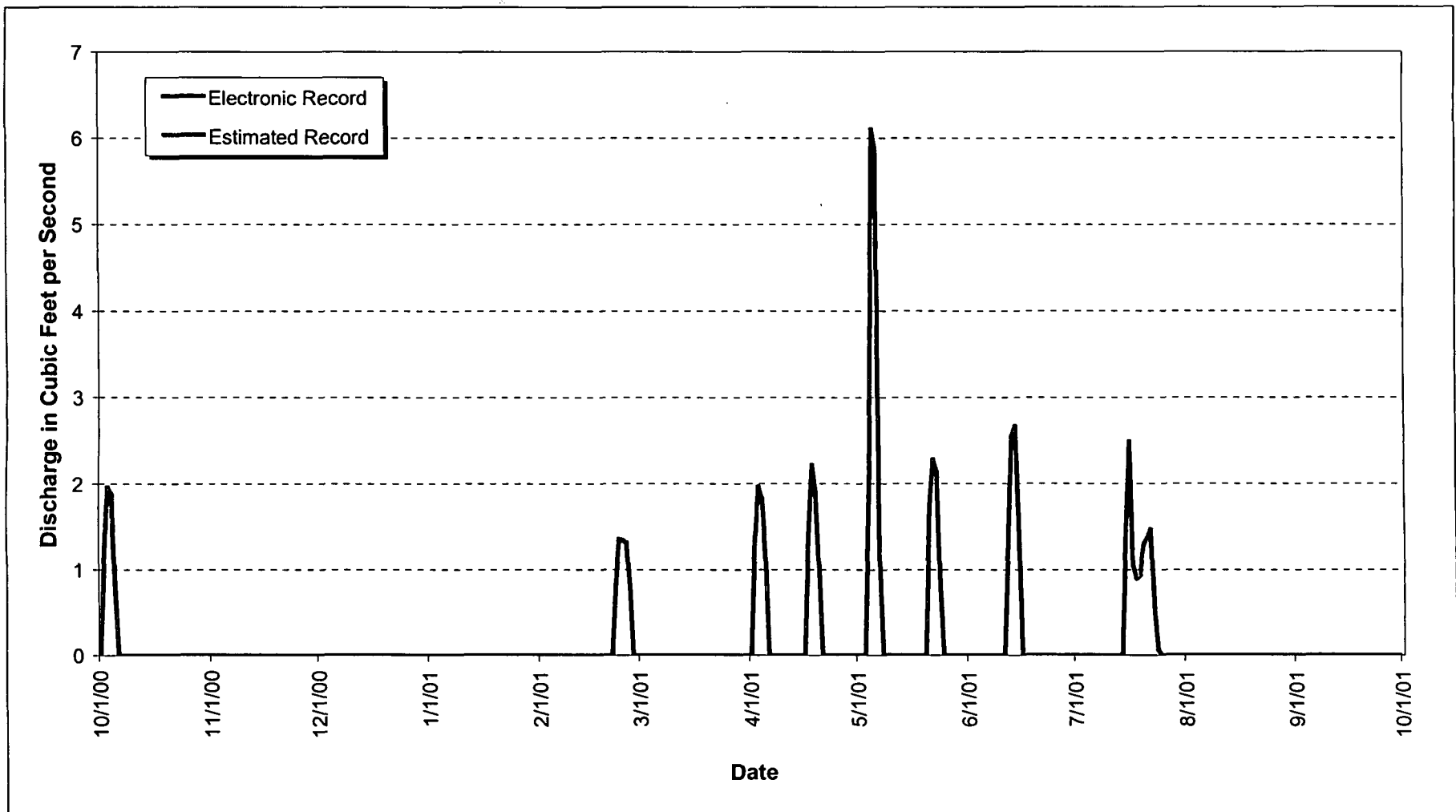


Figure 3-36. WY01 Mean Daily Hydrograph at GS12: North Walnut Creek at Pond A-3 Outlet.

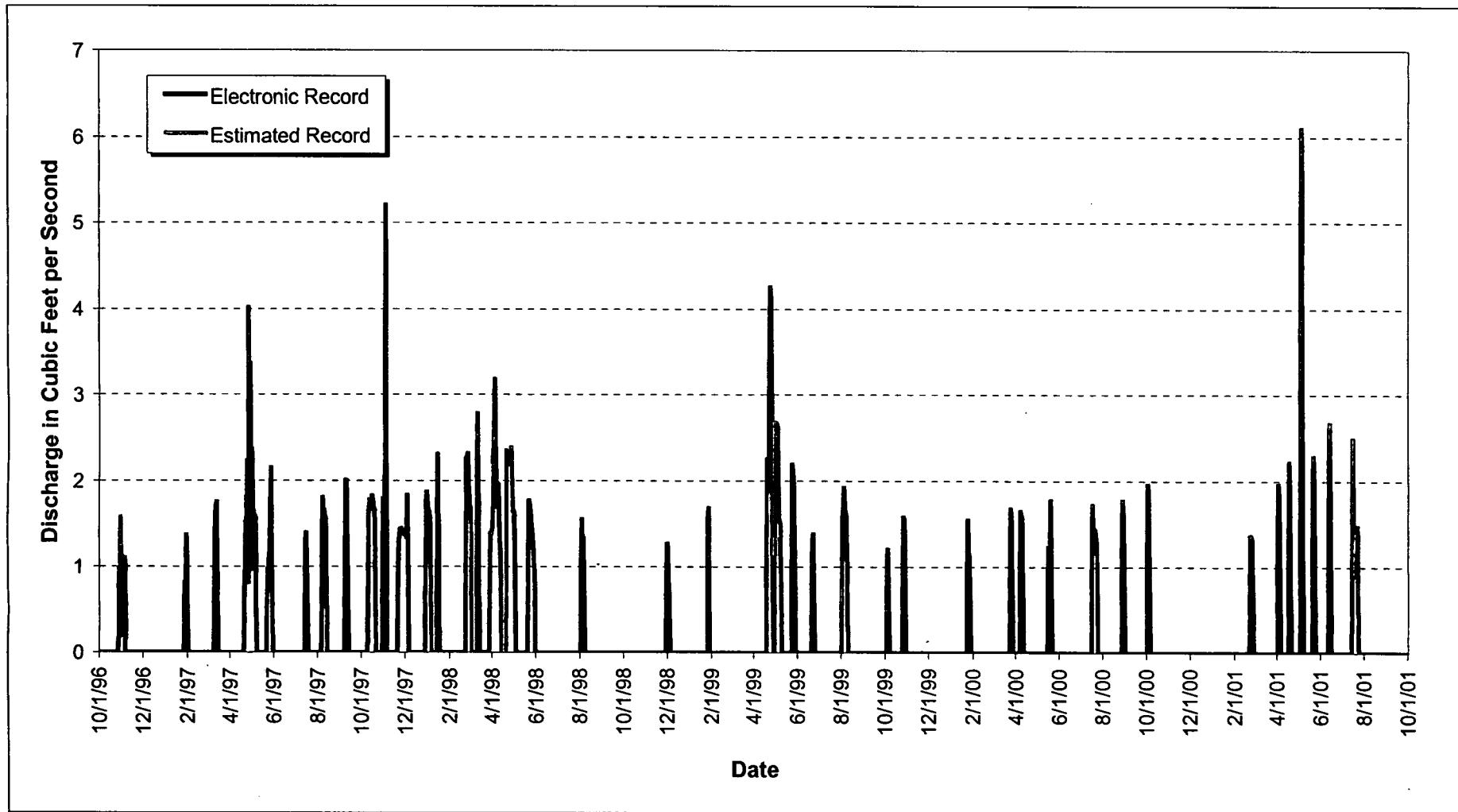


Figure 3-37. WY97-01 Mean Daily Hydrograph at GS12: North Walnut Creek at Pond A-3 Outlet.

3.2.13 GS16: Antelope Springs

Location

Antelope Springs Cr. in S. Buffer Zone; State Plane: 2083406, 746659

Drainage Area

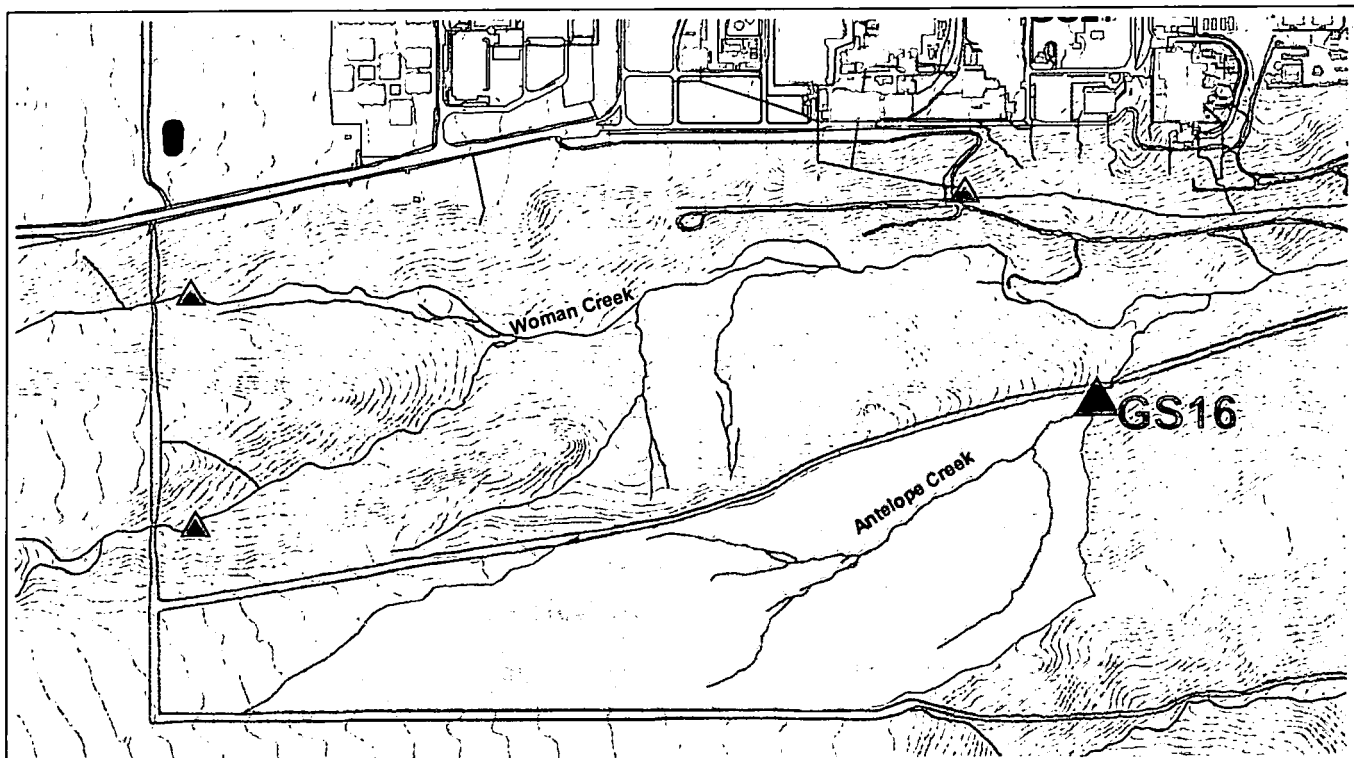
- * The basin includes the Antelope Springs Cr. drainage (total of 104.7 acres)
- * IA Areas draining to GS16: none

Period of Record

4/8/93 to current year

Gage

Water-stage recorder and 6" Parshall flume; 6" Parshall flume 150' downstream prior to 11/30/98



Note: Southern edge of GS16 drainage formed by Buffer Zone dirt road.

Figure 3-38. Map Showing GS16 Drainage Area.

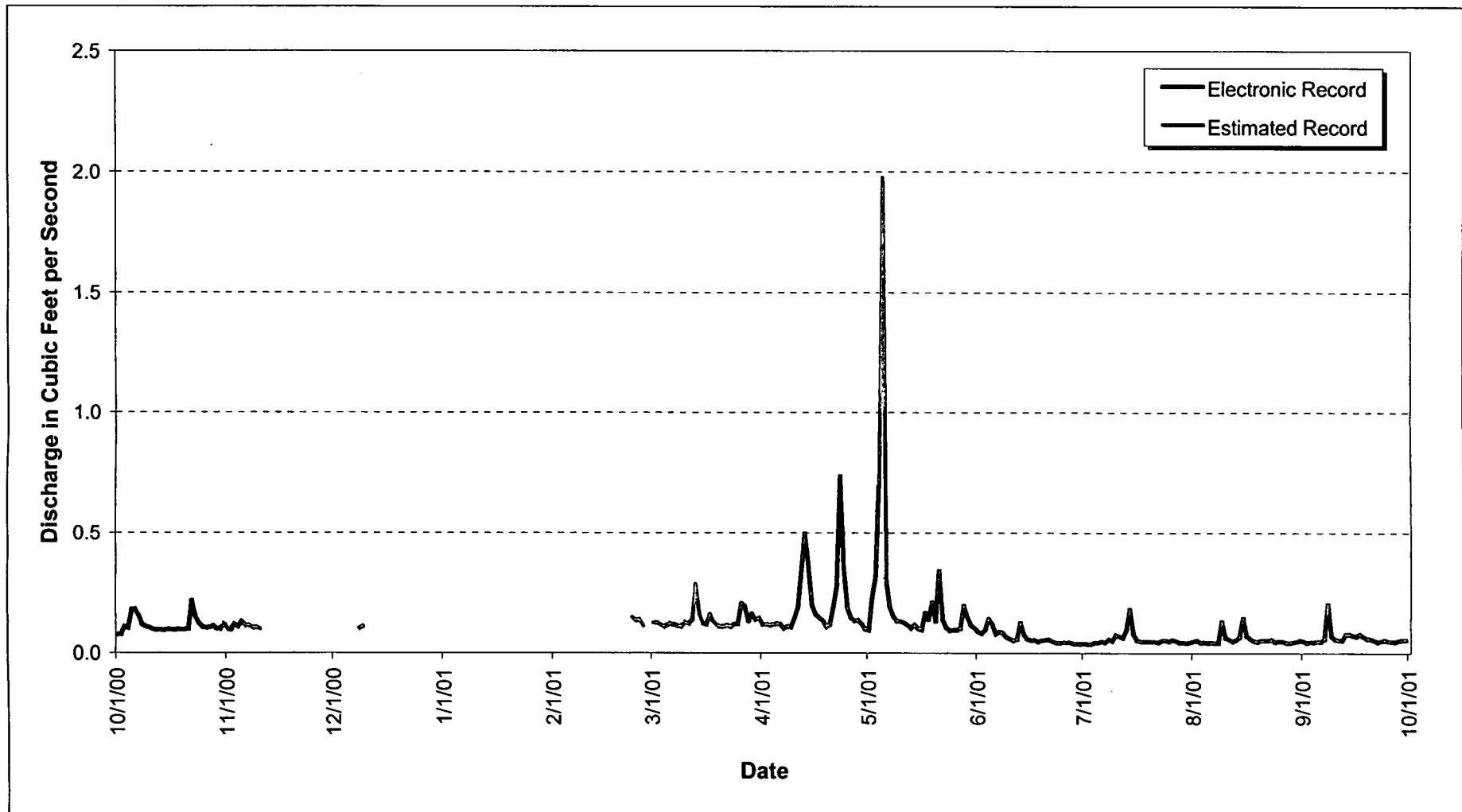


Figure 3-39. WY01 Mean Daily Hydrograph at GS16: Antelope Springs.

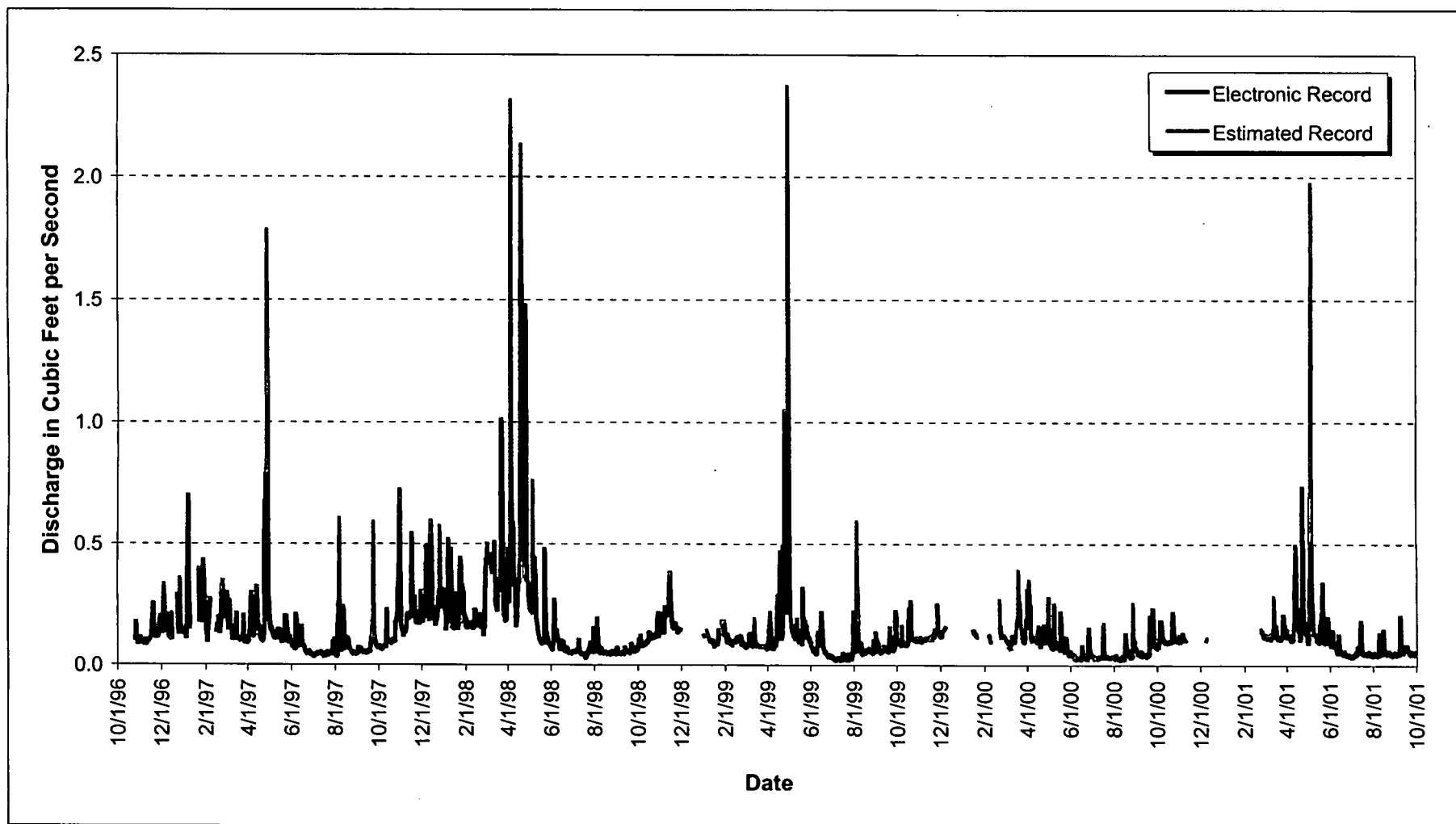


Figure 3-40. WY97-01 Mean Daily Hydrograph at GS16: Antelope Springs.

3.2.14 GS22: 400 Area Outfall to SID

Location

400 Area outfall to SID; State Plane: 2082678, 747820

Drainage Area

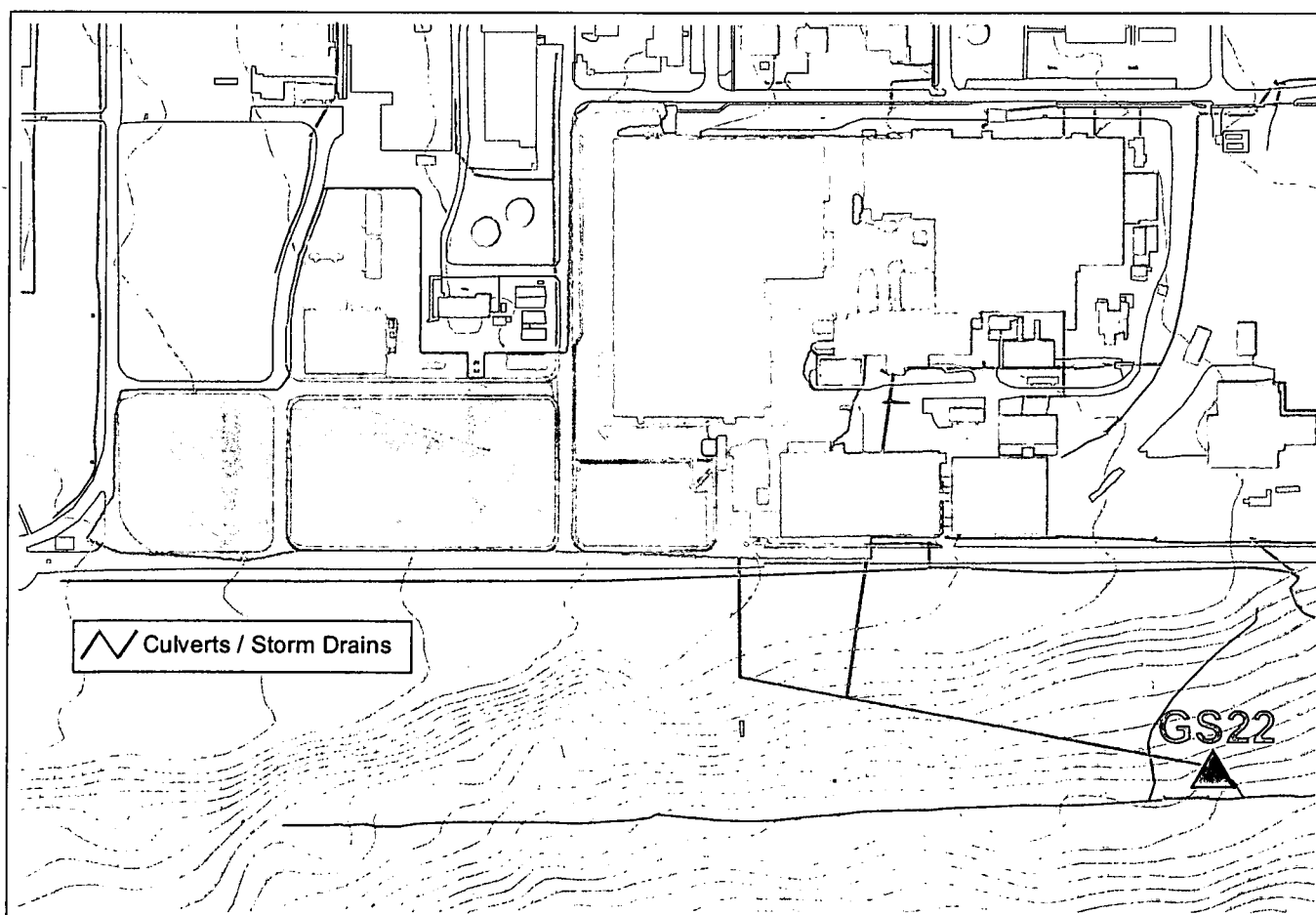
- * The basin includes a portion of the southern IA (total of 17.2 acres)
- * IA Areas draining to GS22: 400 and 100

Period of Record

4/18/95 – 10/1/96; 1/7/00 to current year

Gage

Water-stage recorder and 1.5' H-flume



Note: Water reaches GS22 via underground stormdrains.

Figure 3-41. Map Showing GS22 Drainage Area.

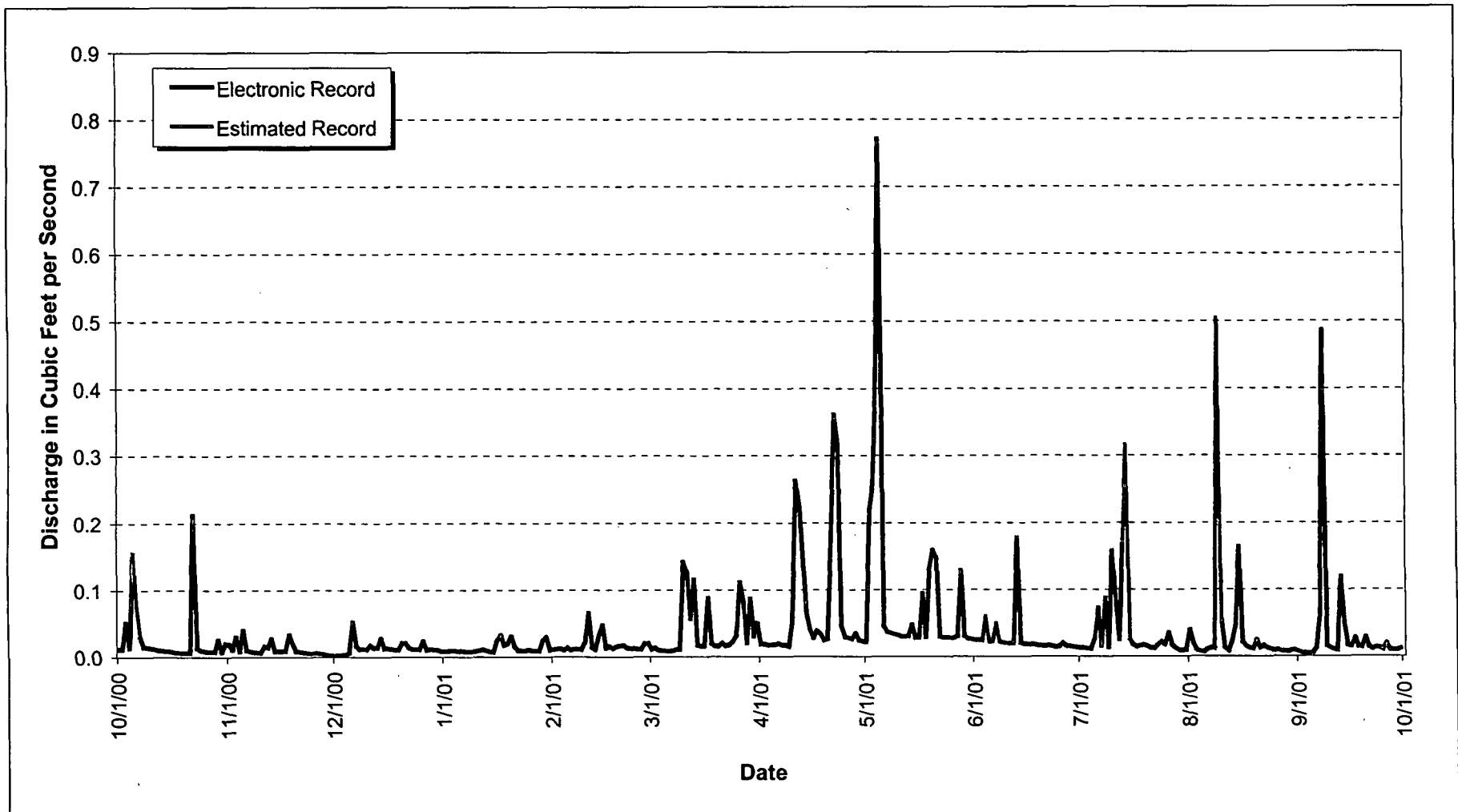


Figure 3-42. WY01 Mean Daily Hydrograph at GS22: 400 Area Outfall to SID.

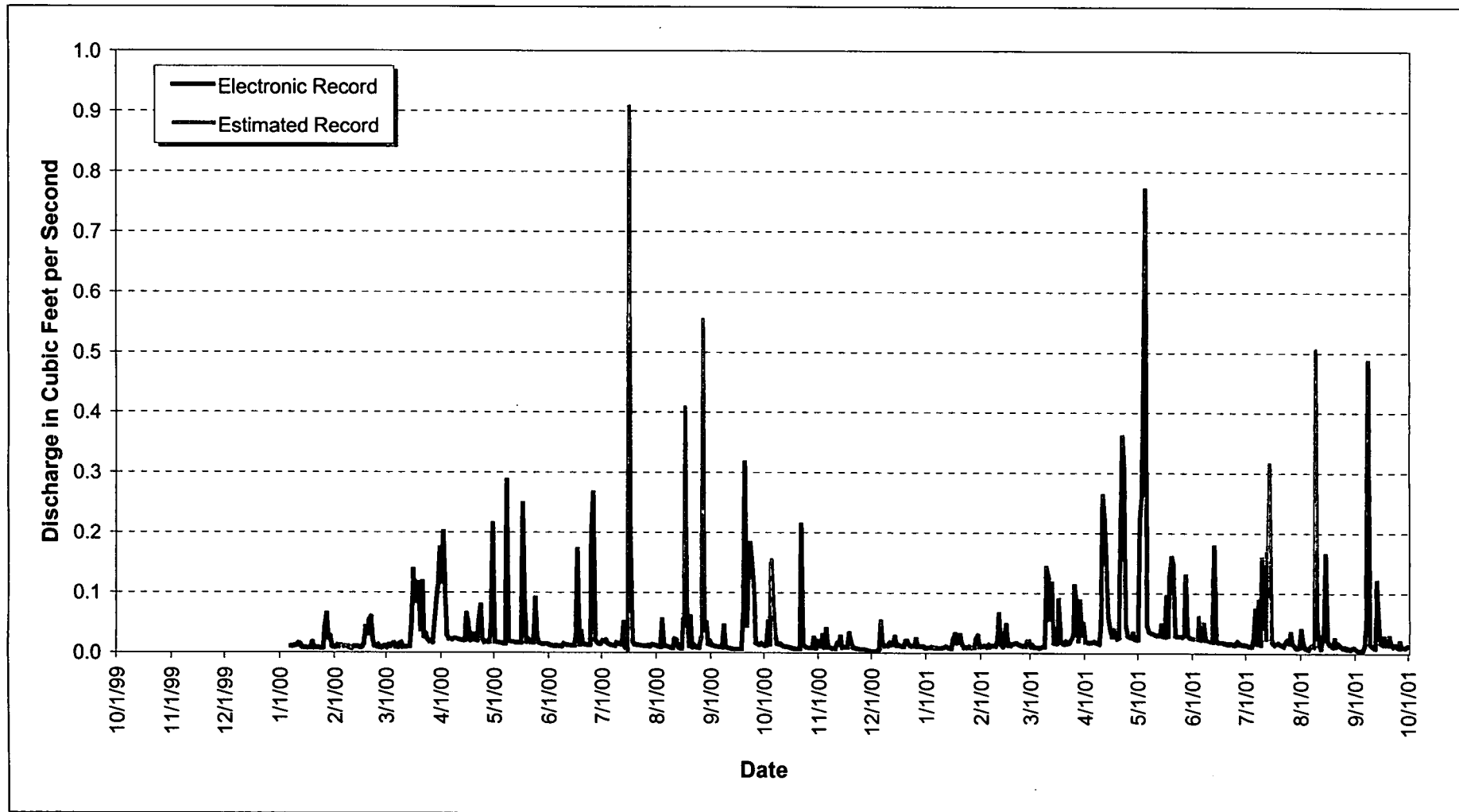


Figure 3-43. WY00-01 Mean Daily Hydrograph at GS22: 400 Area Outfall to SID.

3.2.15 GS27: Building 889/884 Subdrainage Area

Location

Building 889/884 subdrainage area; State Plane: 2083703, 749242

Drainage Area

- * The basin includes the 889/884 area (total of 0.4 acres)
- * IA Areas draining to GS27: 800

Period of Record

3/9/95 to current year

Gage

Water-stage recorder and 2" cutthroat flume

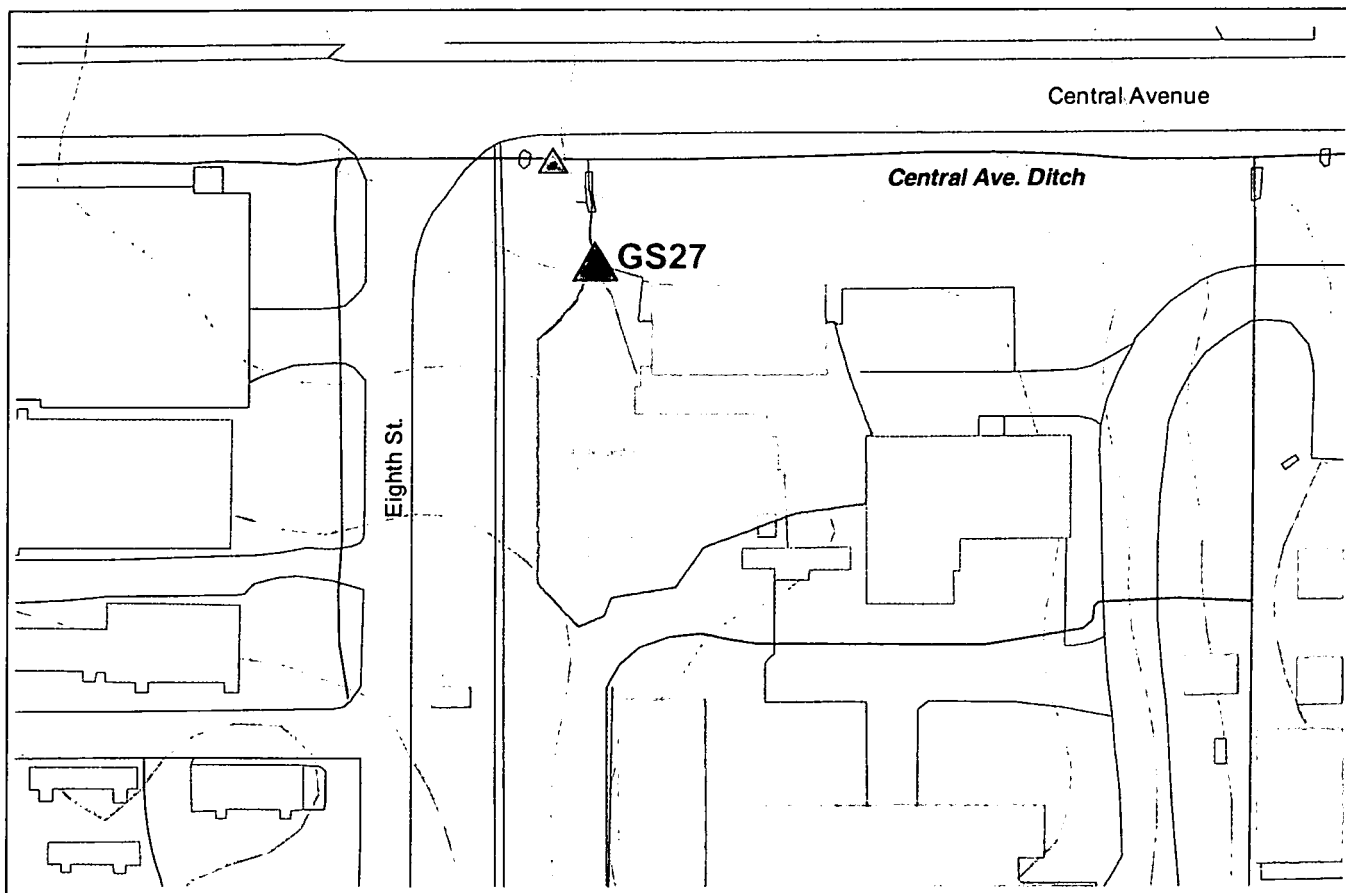


Figure 3-44. Map Showing GS27 Drainage Area.

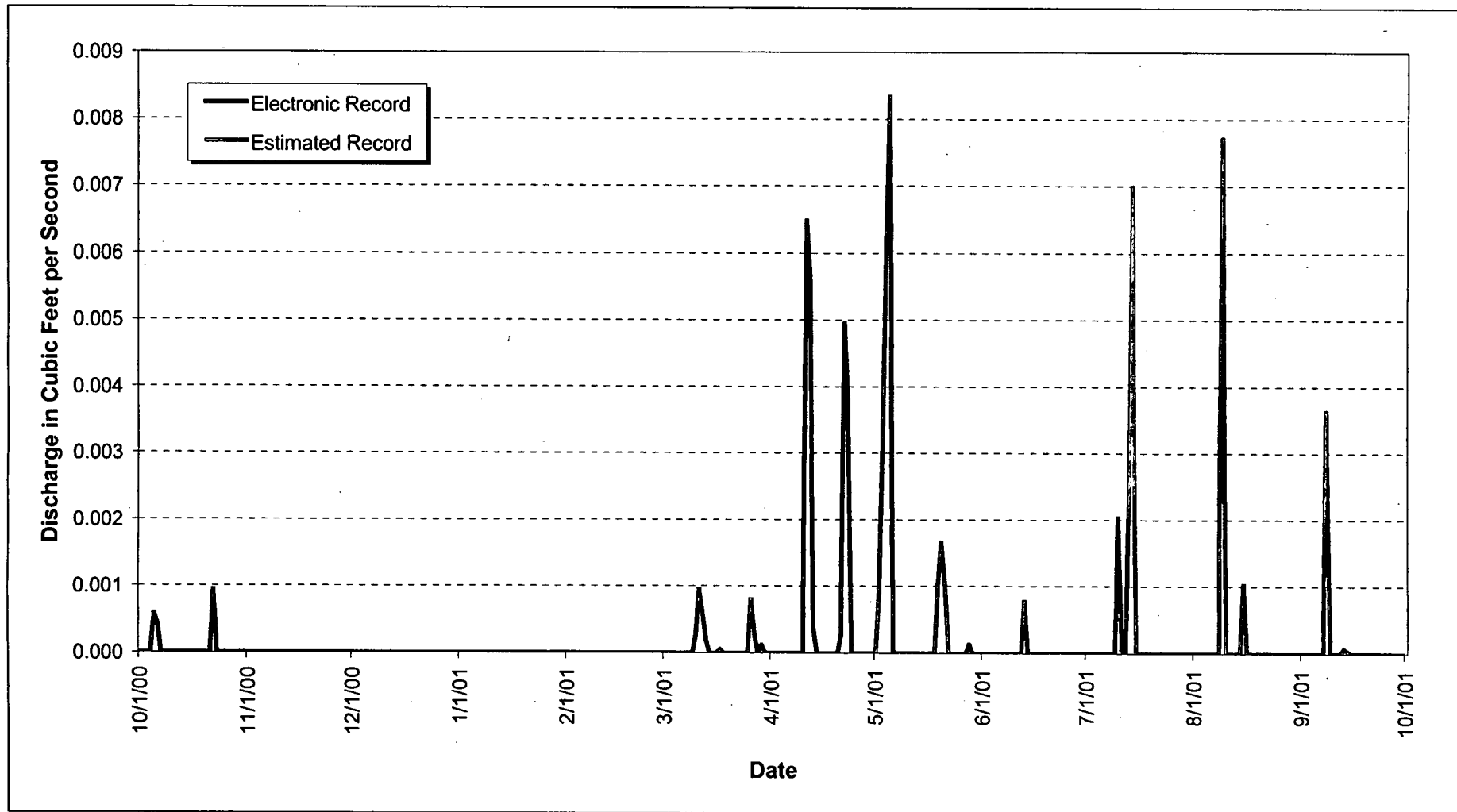


Figure 3-45. WY01 Mean Daily Hydrograph at GS27: Building 889/884 Subdrainage Area.

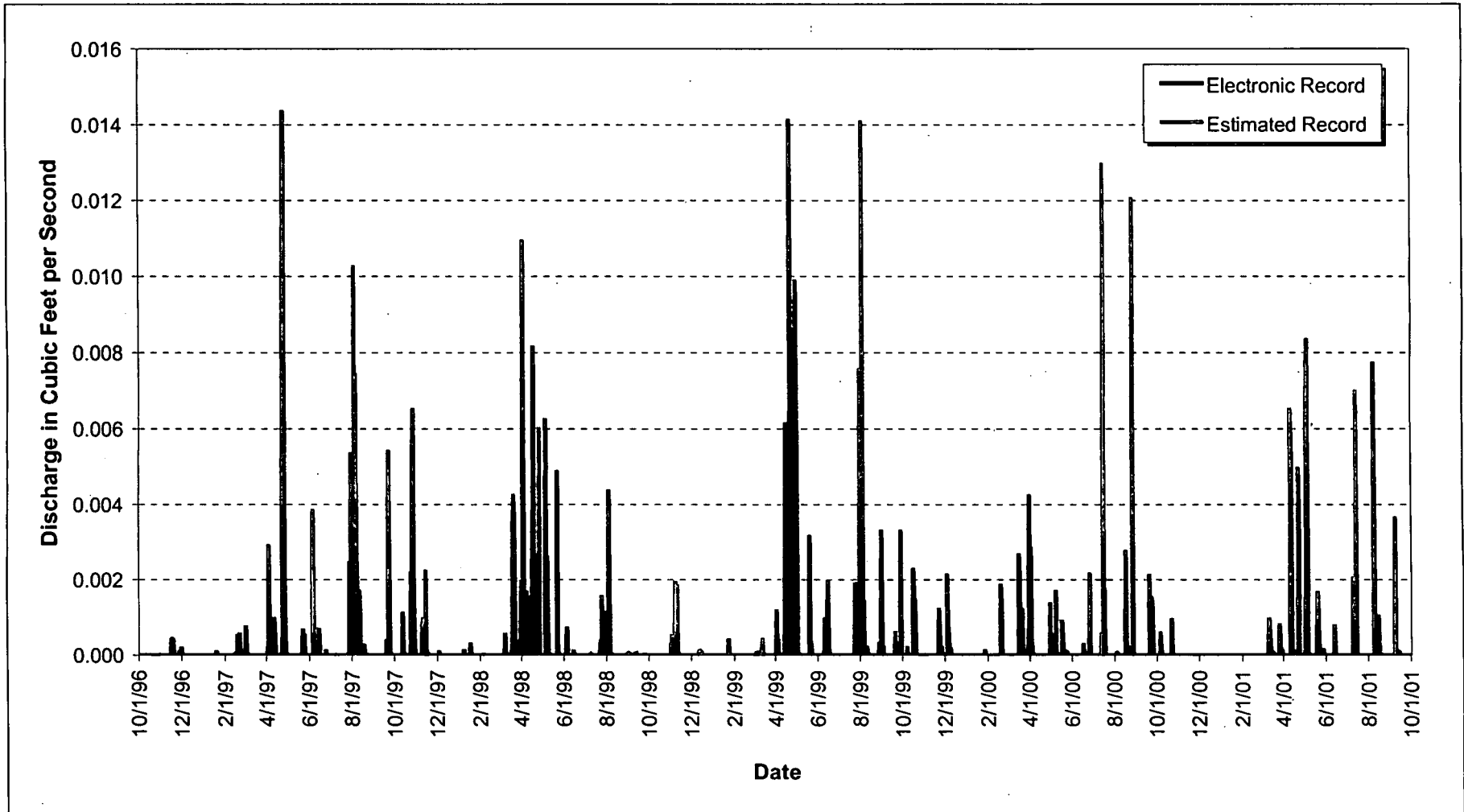


Figure 3-46. WY97-01 Mean Daily Hydrograph at GS27: Building 889/884 Subdrainage Area.

3.2.16 GS31: Woman Creek at Pond C-2 Outlet

Location

Pond C-2 outlet; State Plane: 2089262, 747515

Drainage Area

- * The basin includes a portion of the southern IA draining to the SID and the area surrounding Pond C-2 (total of 240.2 acres)
- * IA Areas draining to GS31: 900, 800, 600, 400, and 100

Period of Record

10/1/96 to current year

Gage

Water-stage recorder and 24" Parshall flume

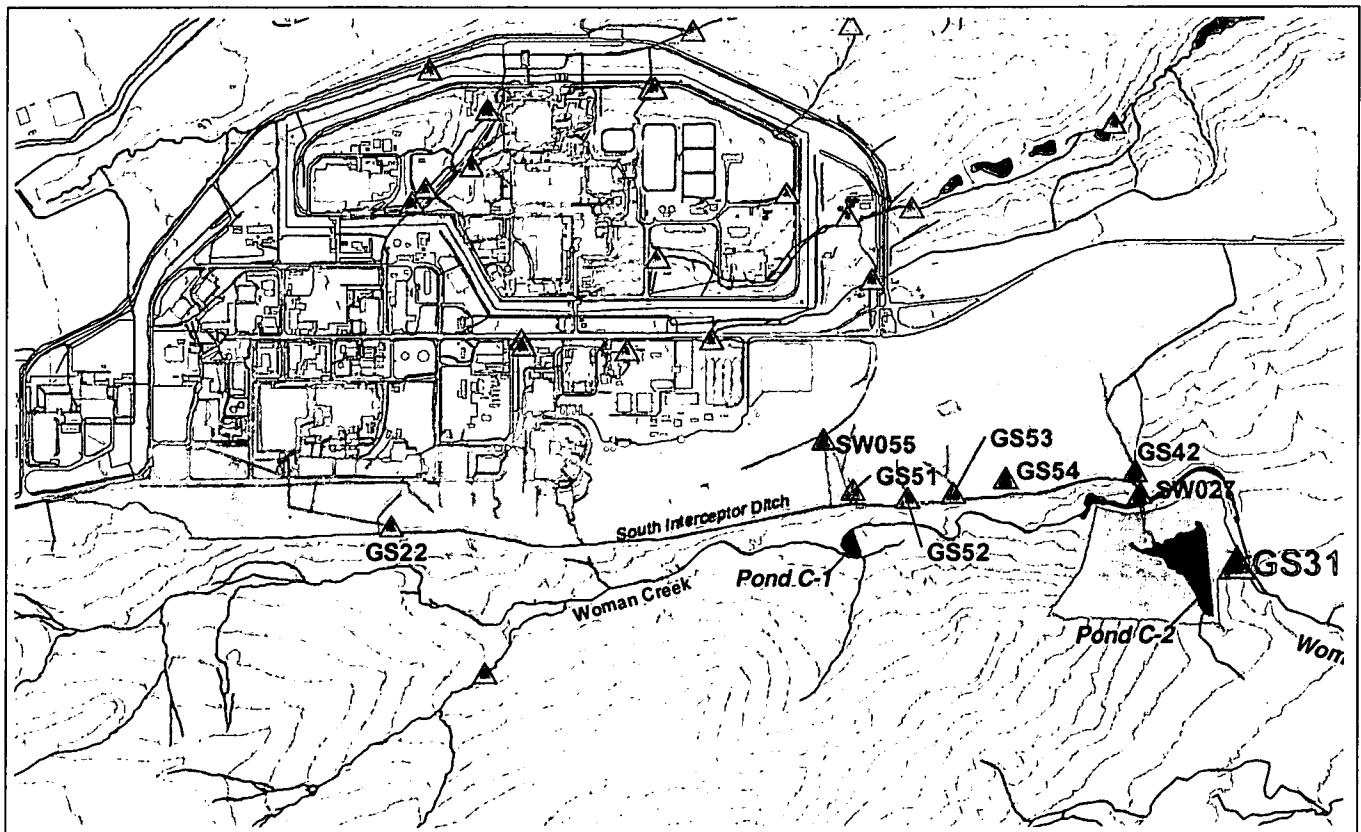


Figure 3-47. Map Showing GS31 Drainage Area.

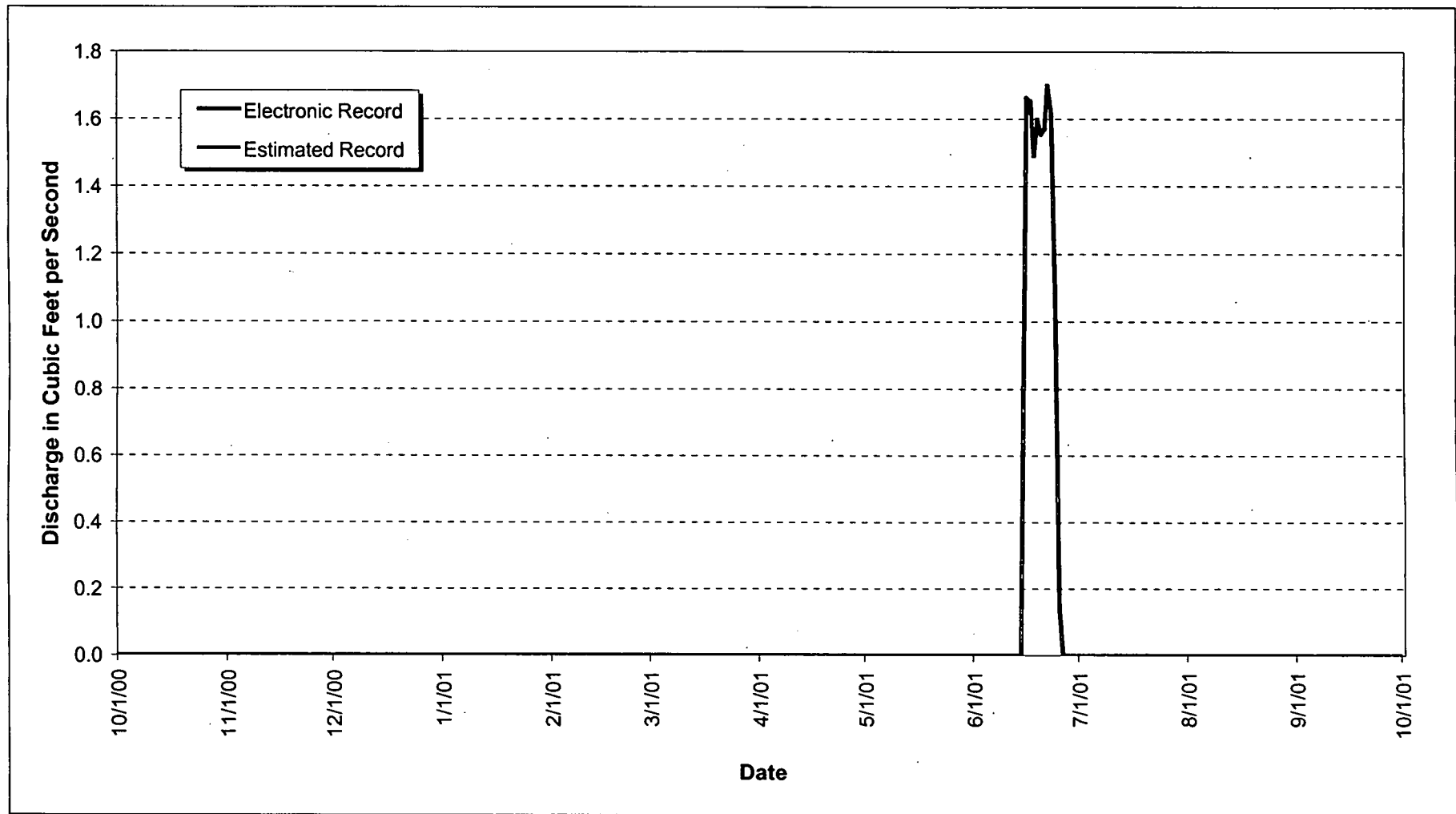


Figure 3-48. WY01 Mean Daily Hydrograph at GS31: Woman Creek at Pond C-2 Outlet.

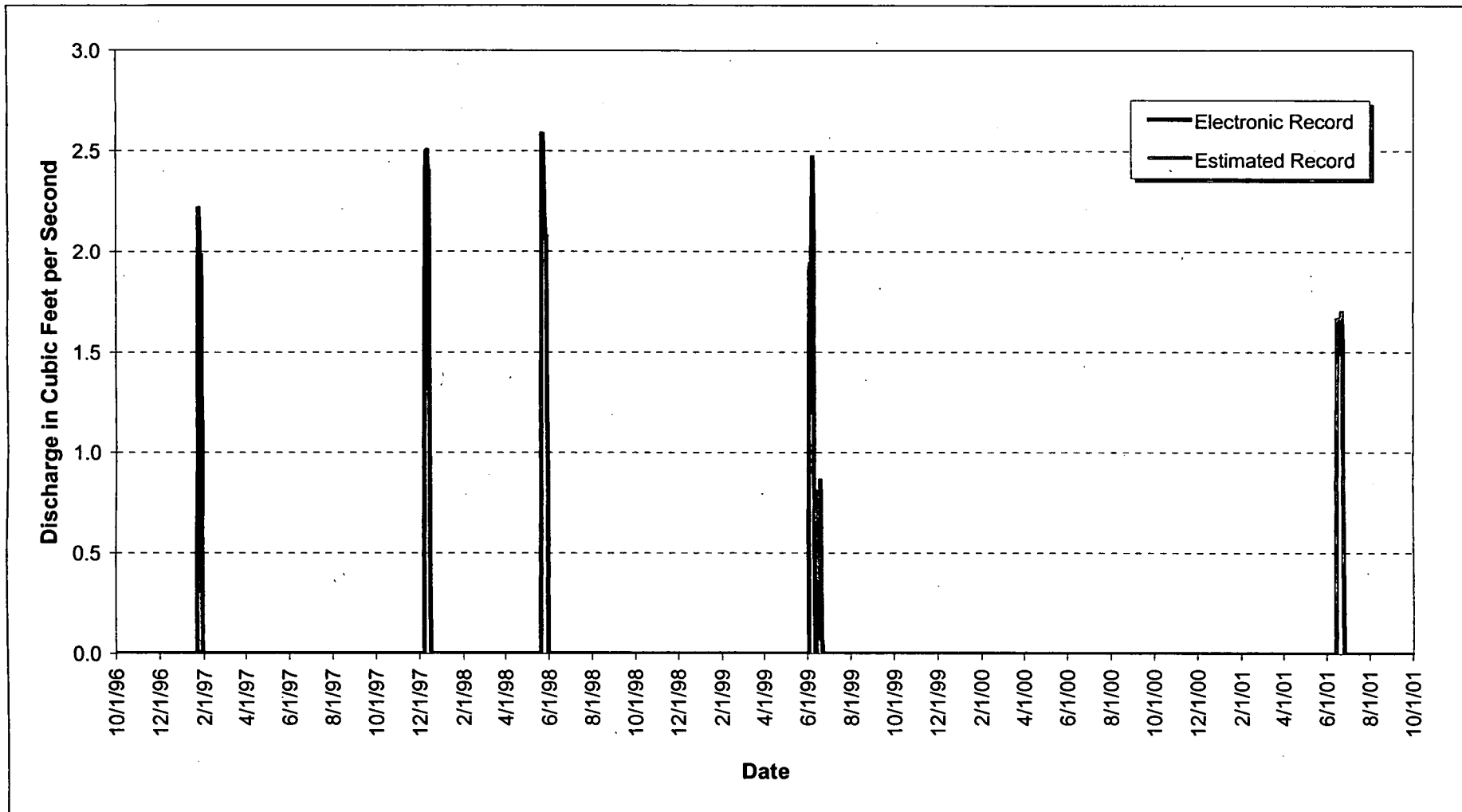


Figure 3-49. WY97-01 Mean Daily Hydrograph at GS31: Woman Creek at Pond C-2 Outlet.

3.2.17 GS32: Building 779 Subdrainage Area

Location

B779 Area outfall; State Plane: 2084700, 751262

Drainage Area

- * The basin includes the B779 subdrainage (total of 5.6 acres)
- * IA Areas draining to GS32: 700

Period of Record

1/31/97 to current year

Gage

No flow measurement at GS32

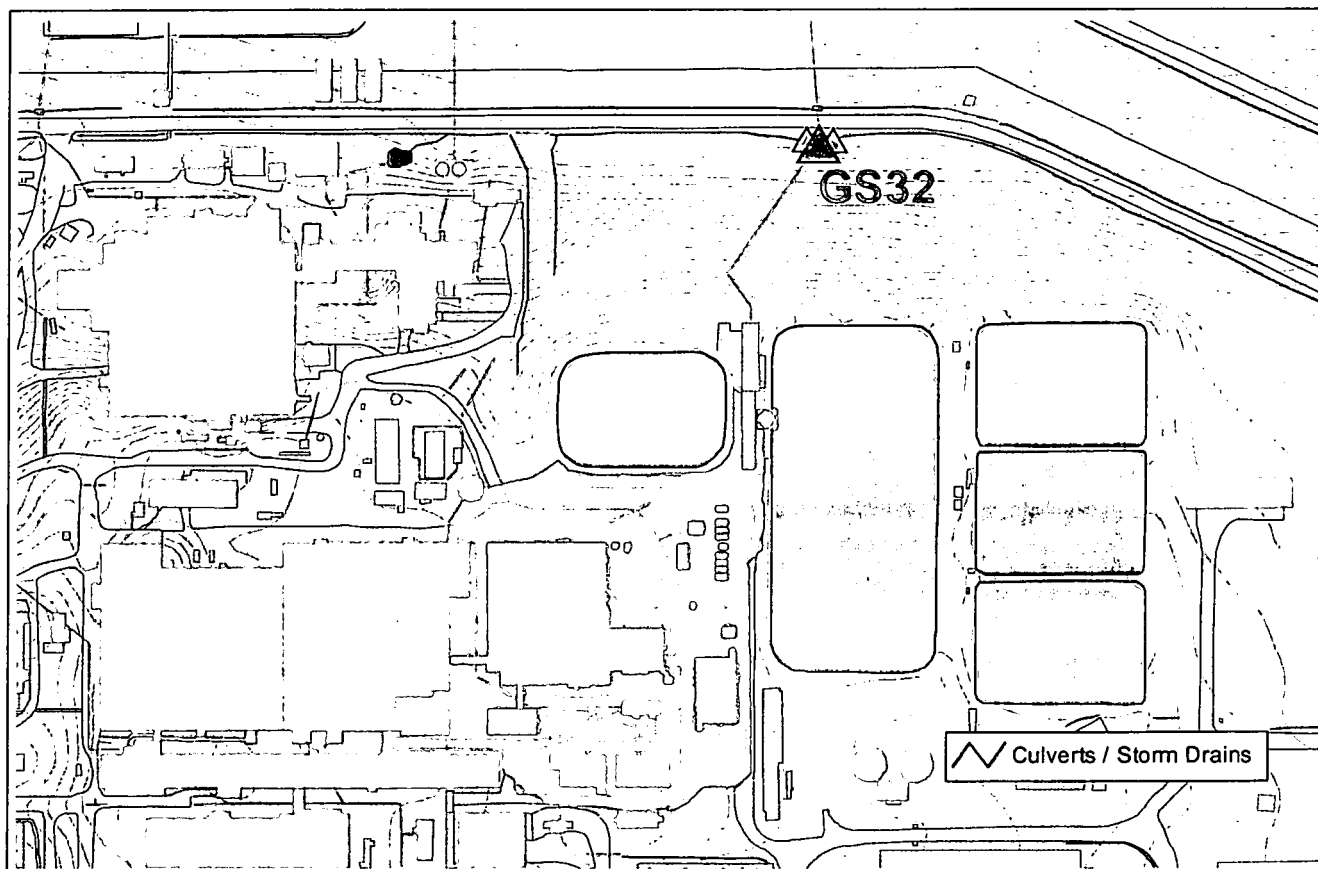


Figure 3-50. Map Showing GS32 Drainage Area.

3.2.18 GS33: No Name Gulch at Walnut Creek

Location

No Name Gulch at Walnut Cr.; State Plane: 2090209, 753621

Drainage Area

* The basin is the No Name Gulch drainage not including the Landfill Pond which is pump transferred to the A-Series Ponds (total of 245.8 acres)

* IA Areas draining to GS33: none

Period of Record

9/16/97 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

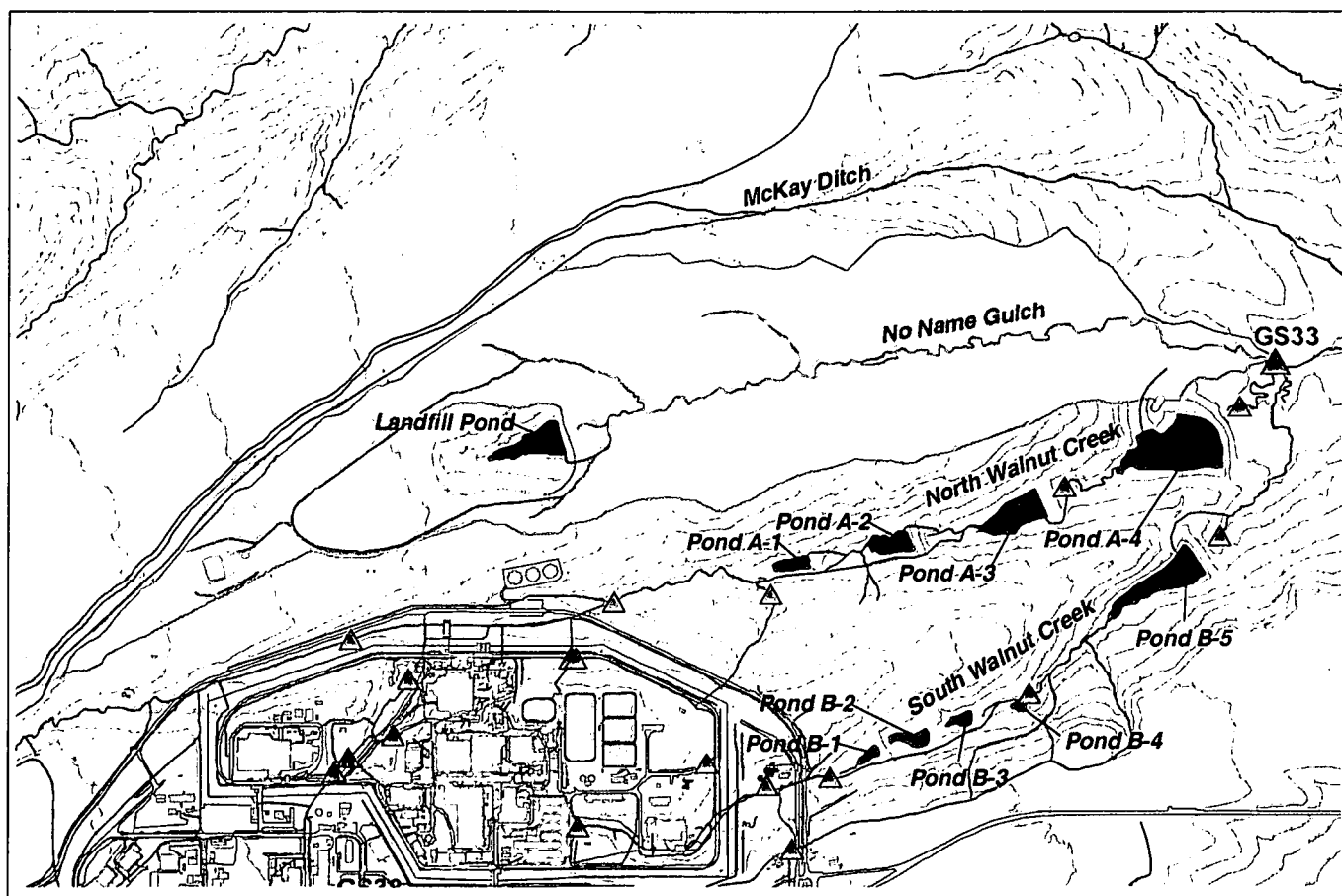


Figure 3-51. Map Showing GS33 Drainage Area.

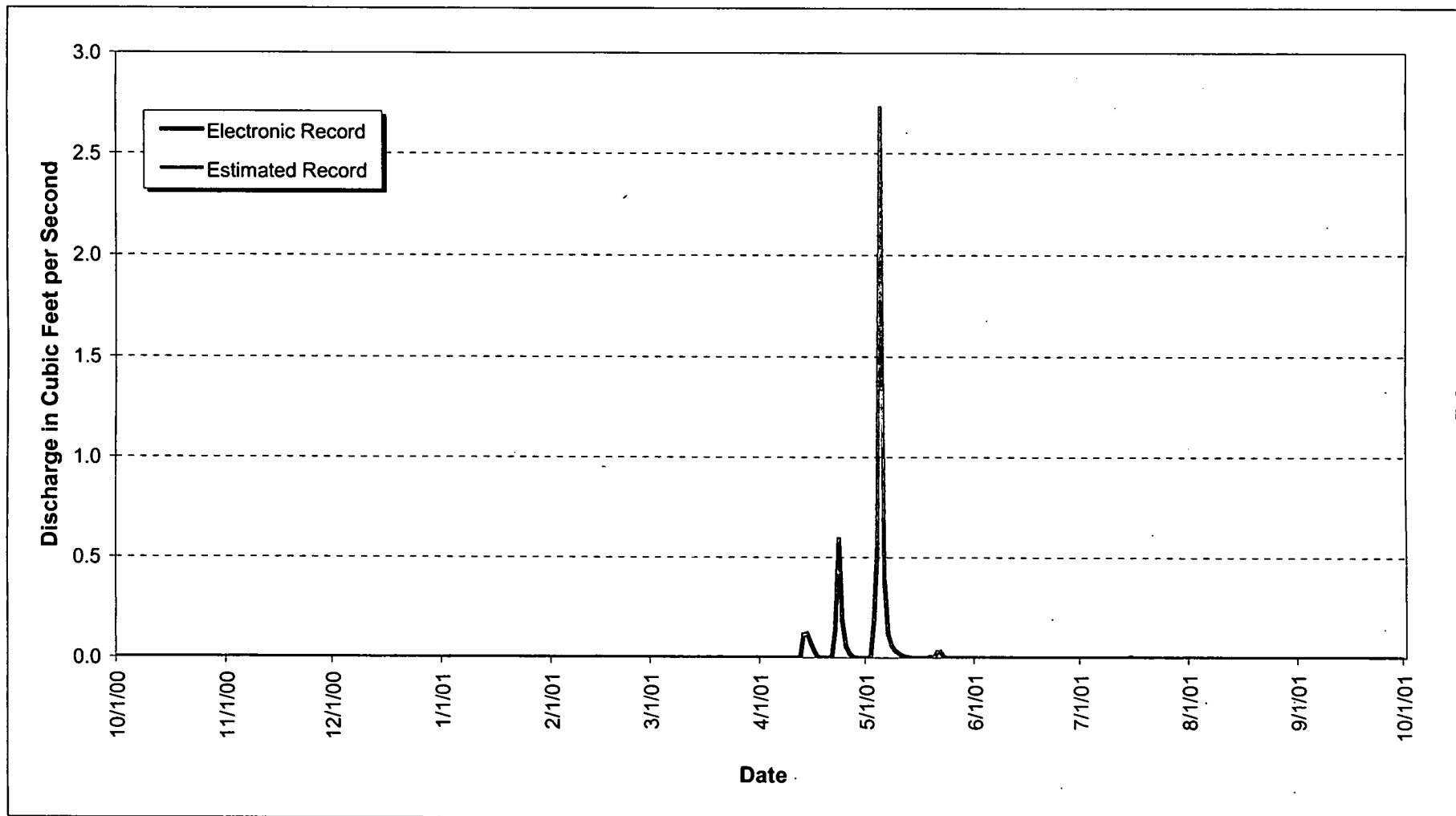


Figure 3-52. WY01 Mean Daily Hydrograph at GS33: No Name Gulch at Walnut Creek.

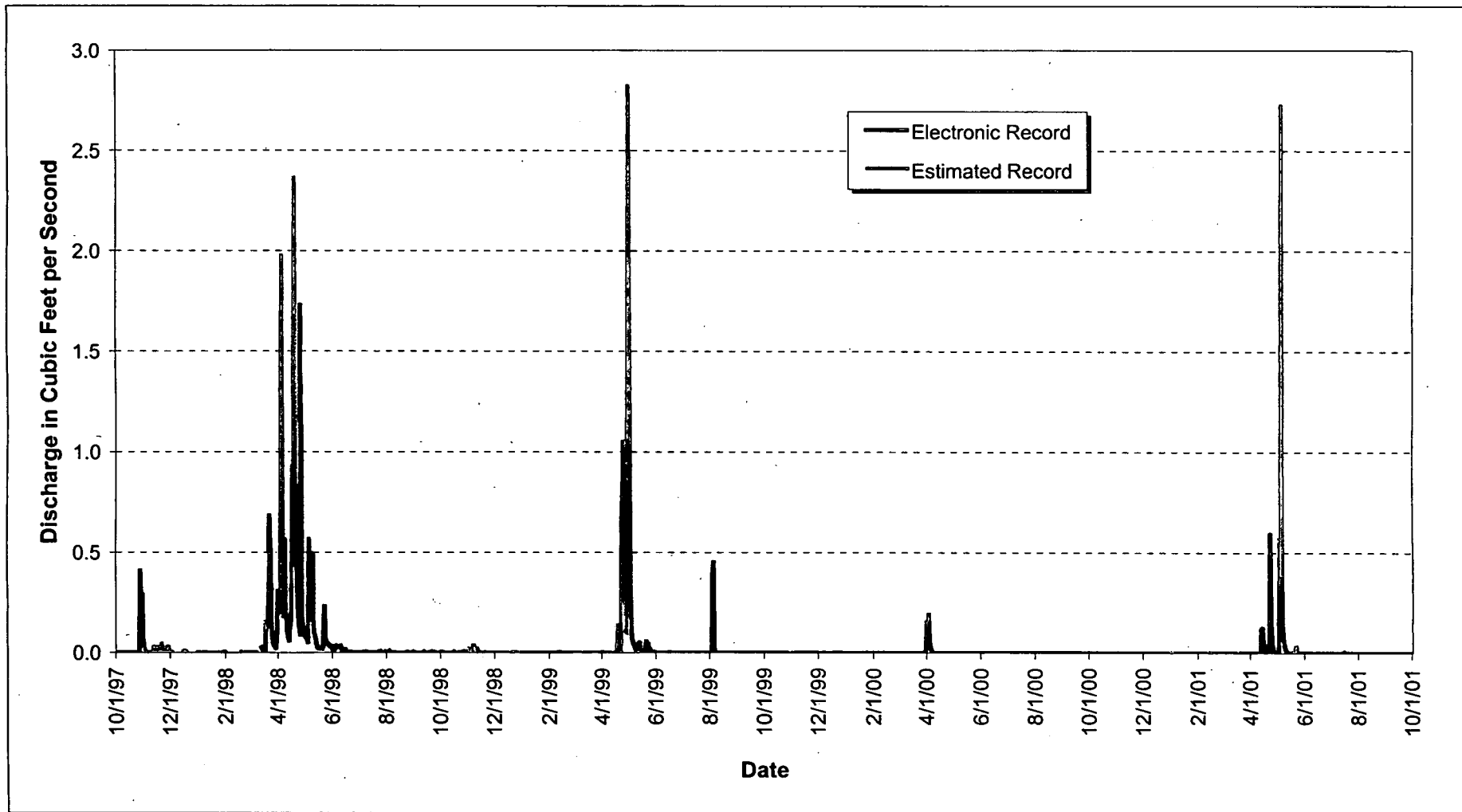


Figure 3-53. WY98-01 Mean Daily Hydrograph at GS33: No Name Gulch at Walnut Creek.

3.2.19 GS34: Walnut Creek Above Confluence with McKay Ditch

Location

Walnut Creek above confluence with McKay Ditch; State Plane: 2091278, 753793

Drainage Area

- * The basin includes a majority of the IA, No Name Gulch, and the areas below Ponds A-4 and B-5 (total of 1093.2 acres)
- * IA Areas draining to GS34: All

Period of Record

2/5/98 to 7/29/01

Gage

Water-stage recorder and 18" Parshall flume

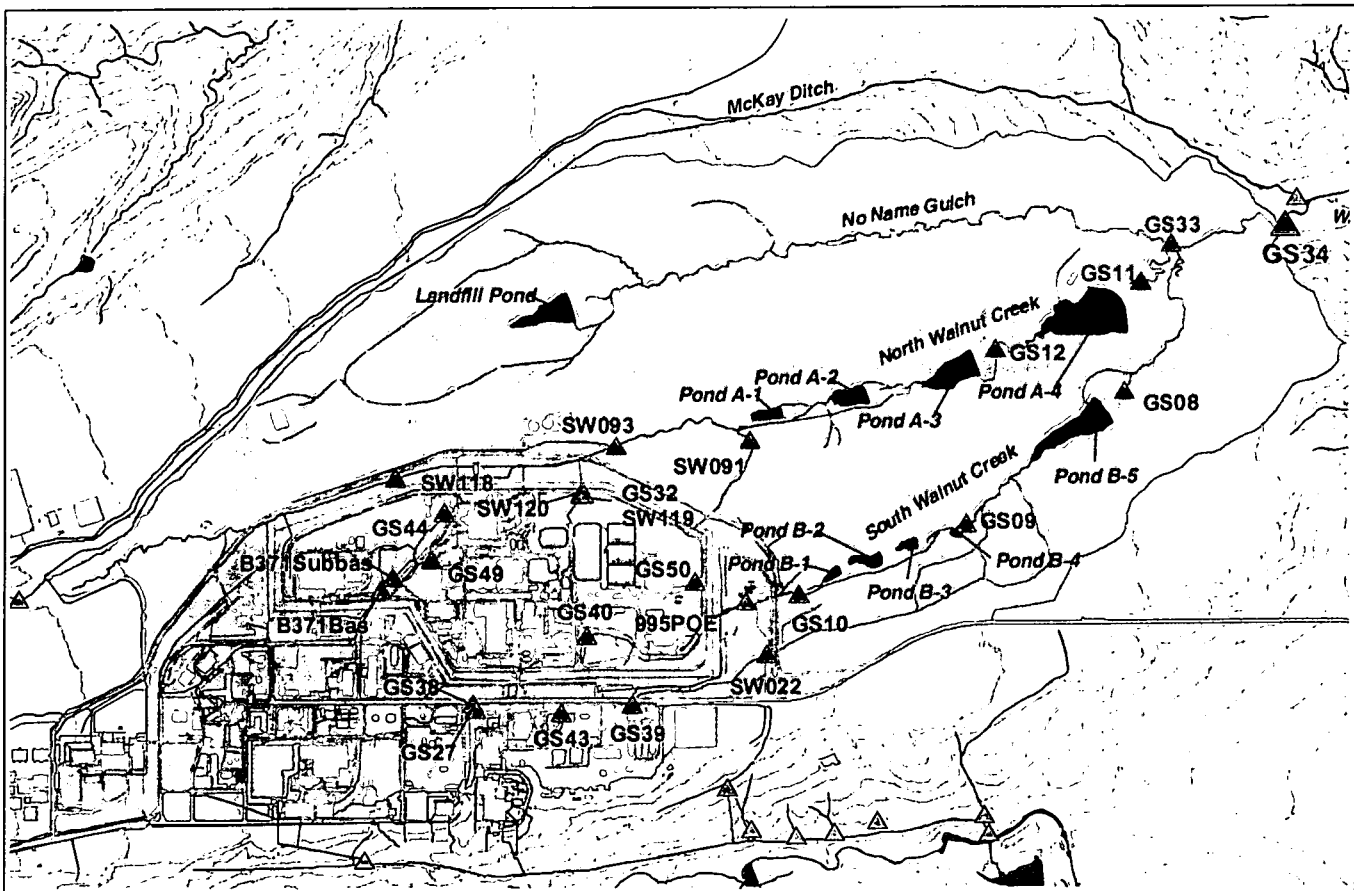


Figure 3-54. Map Showing GS34 Drainage Area.

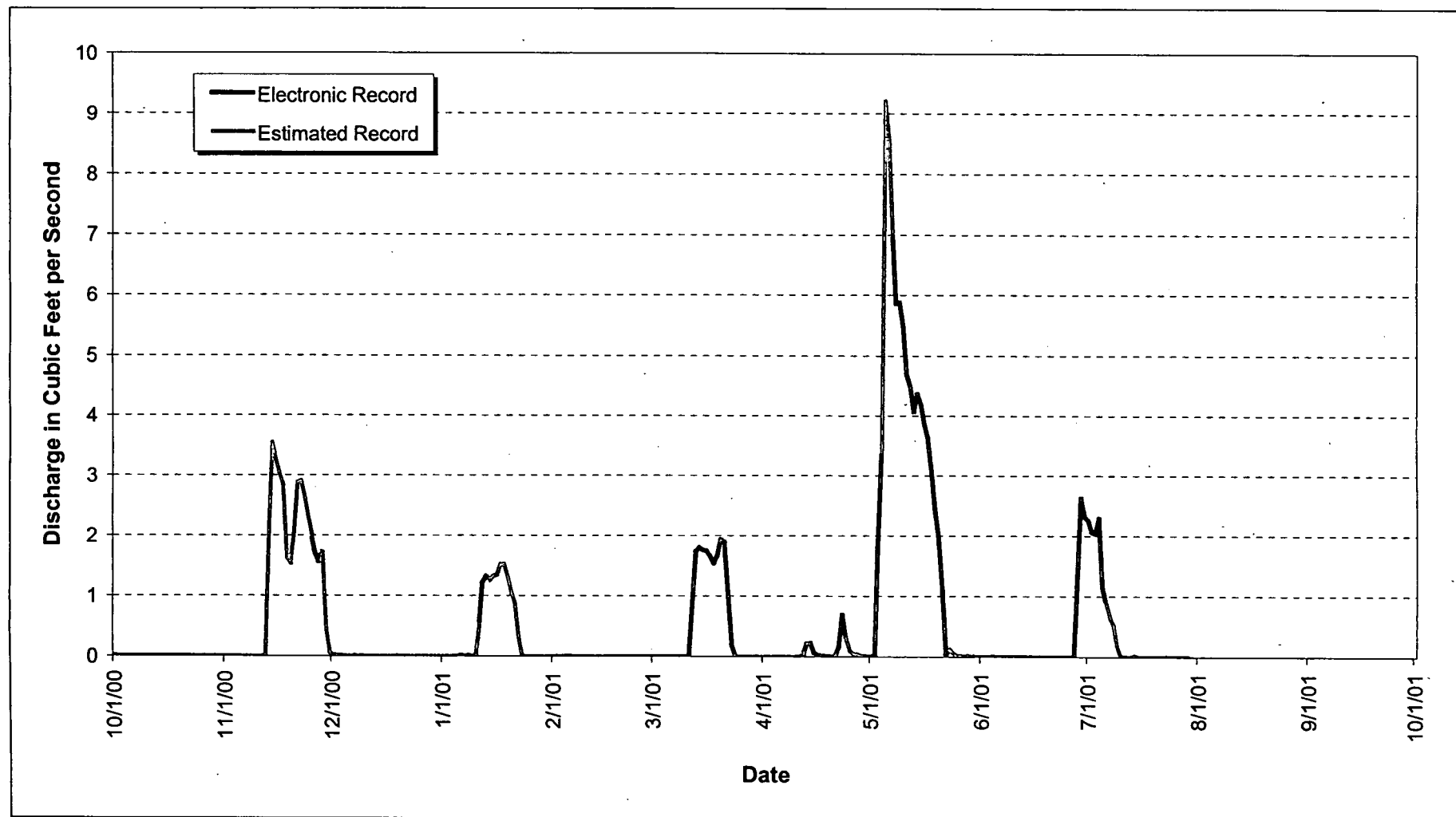


Figure 3-55. WY01 Mean Daily Hydrograph at GS34: Walnut Creek above Confluence with McKay Ditch.

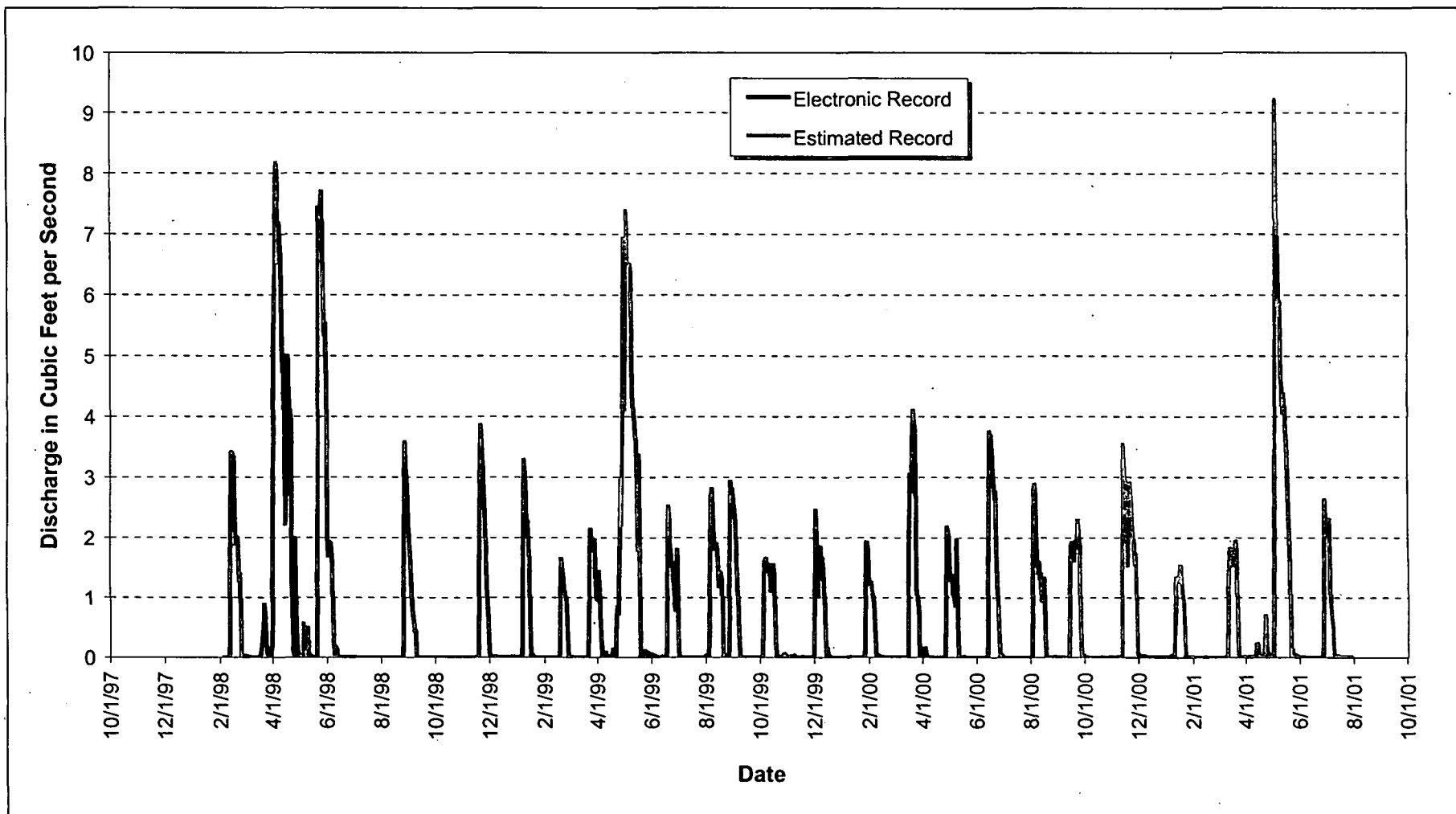


Figure 3-56. WY98-01 Mean Daily Hydrograph at GS34: Walnut Creek above Confluence with McKay Ditch.

3.2.20 GS35: McKay Ditch at Walnut Creek

Location

McKay Ditch at Walnut Cr.; State Plane: 2091379, 754062

Drainage Area

* The basin includes the McKay Ditch and areas west of the Site up to Coal Creek (total drainage acreage unknown). Completed in the summer of 1999, the McKay Bypass pipeline diverts water from McKay Ditch upstream of GS35 (Figure 3-1). The diverted water flows around Lower Walnut Creek to Great Western Reservoir. Small flows are still allowed to reach GS35 as habitat enhancement, and all flow can be diverted to GS35 at any time.

* IA Areas draining to GS35: 100

Period of Record

9/18/97 to current year

Gage

Water-stage recorder and 36" contracted rectangular weir

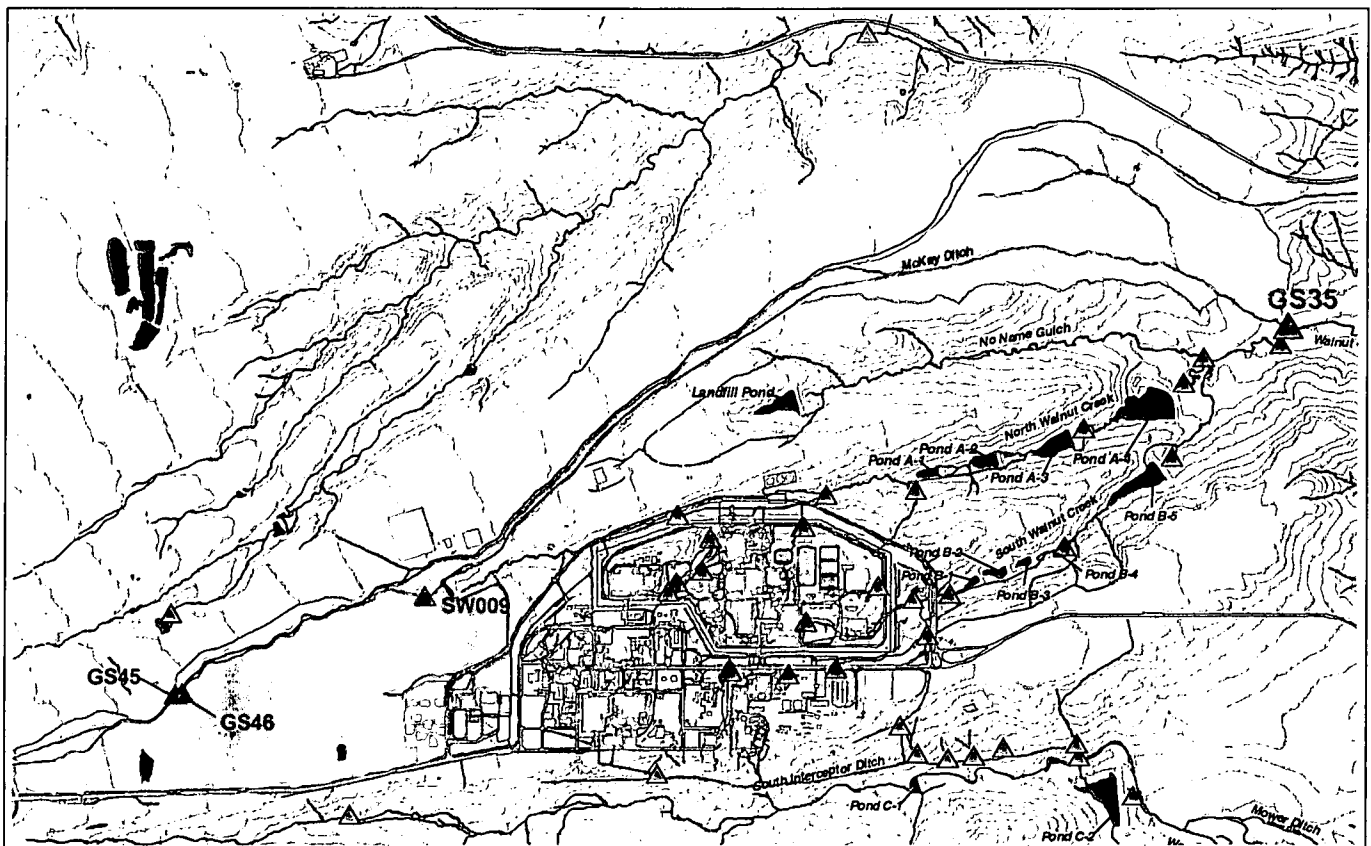


Figure 3-57. Map Showing GS35 Drainage Area.

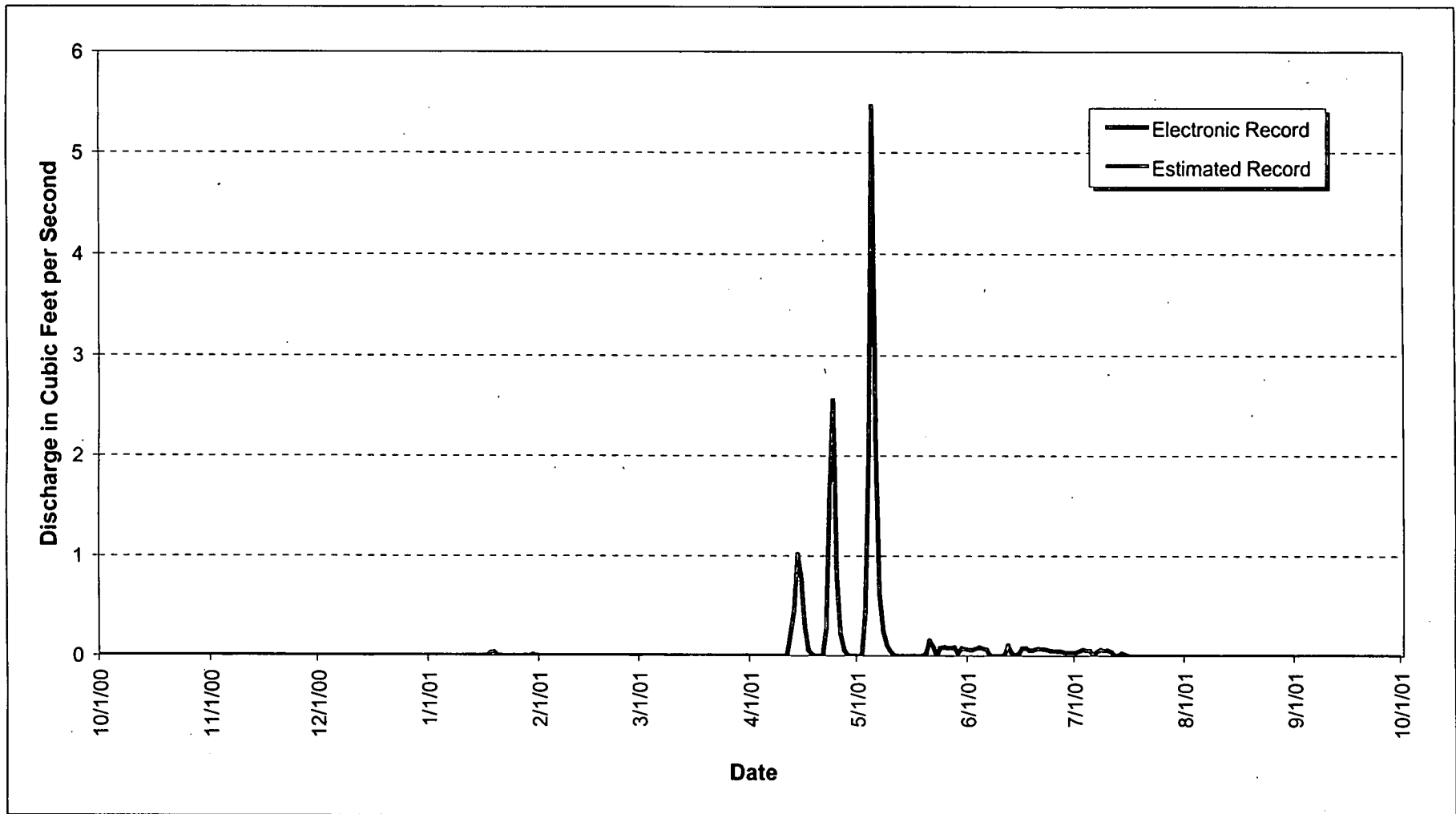


Figure 3-58. WY01 Mean Daily Hydrograph at GS35: McKay Ditch at Walnut Creek.

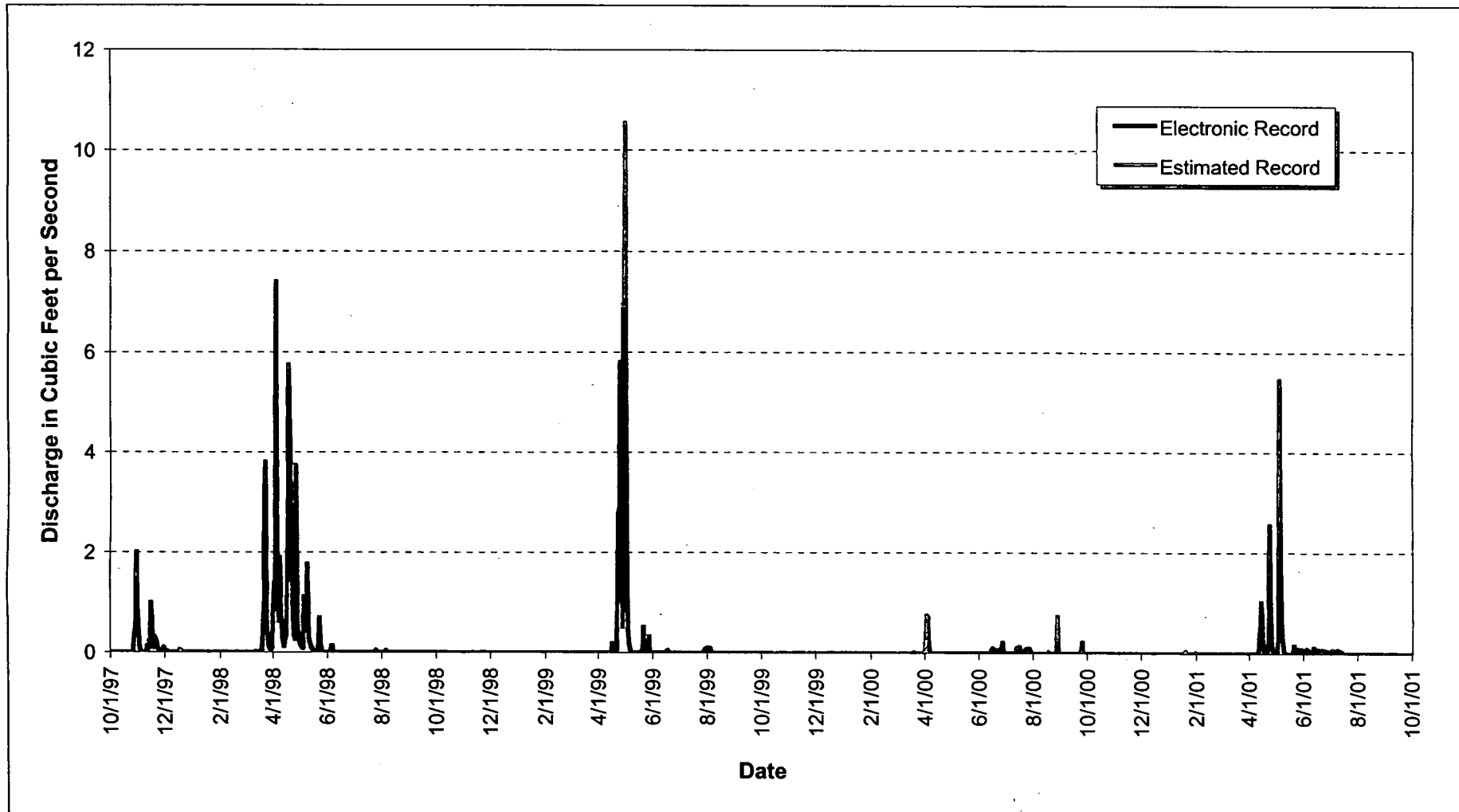


Figure 3-59. WY98-01 Mean Daily Hydrograph at GS35: McKay Ditch at Walnut Creek.

3.2.21 GS38: Central Avenue Ditch at Eighth Street

Location

Central Avenue Ditch at Eighth Street; State Plane: 2083684, 749289

Drainage Area

- * The basin includes a portion of the southwestern IA (total of 41.3 acres)
- * IA Areas draining to GS38: 600, 400, and 100

Period of Record

1/28/98 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

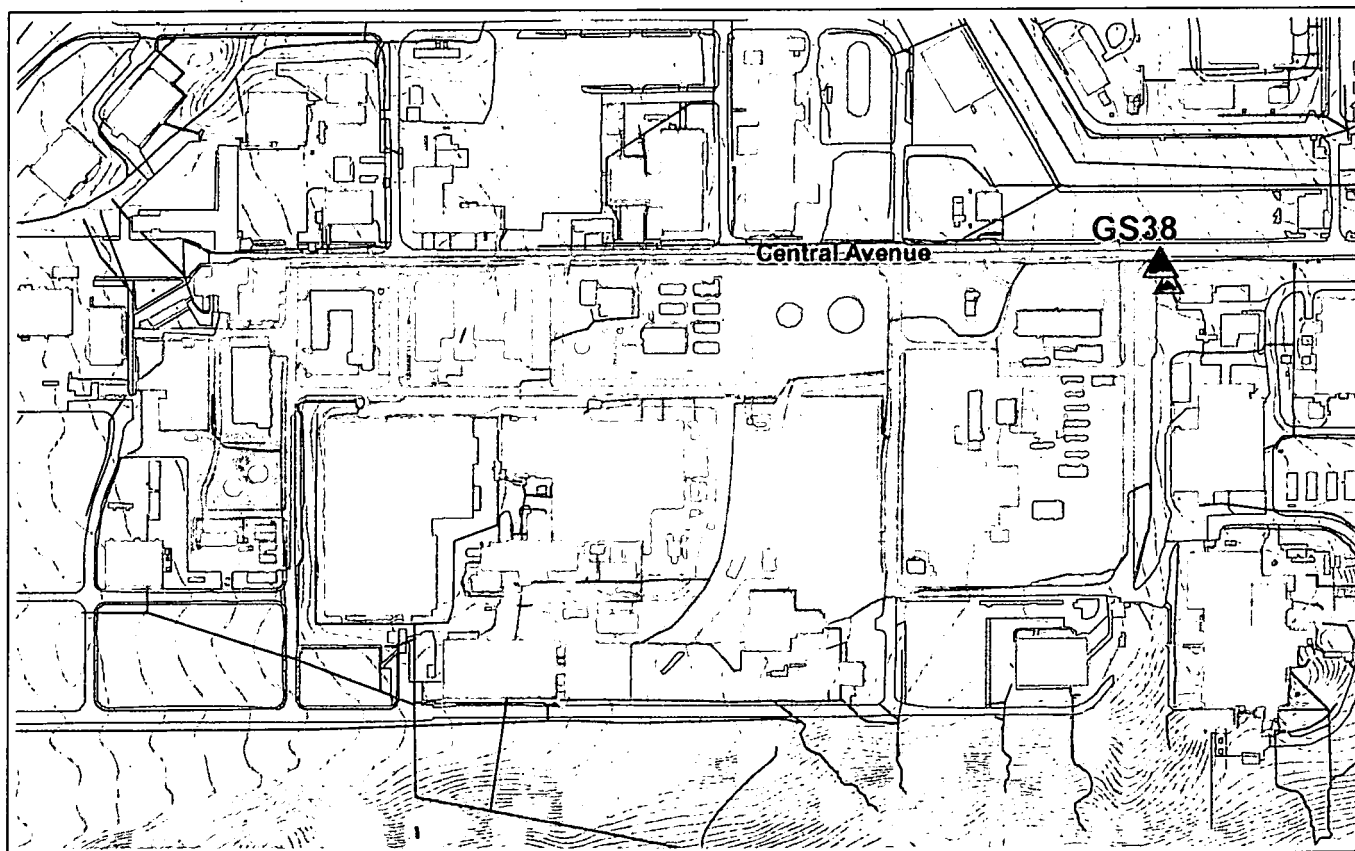


Figure 3-60. Map Showing GS38 Drainage Area.

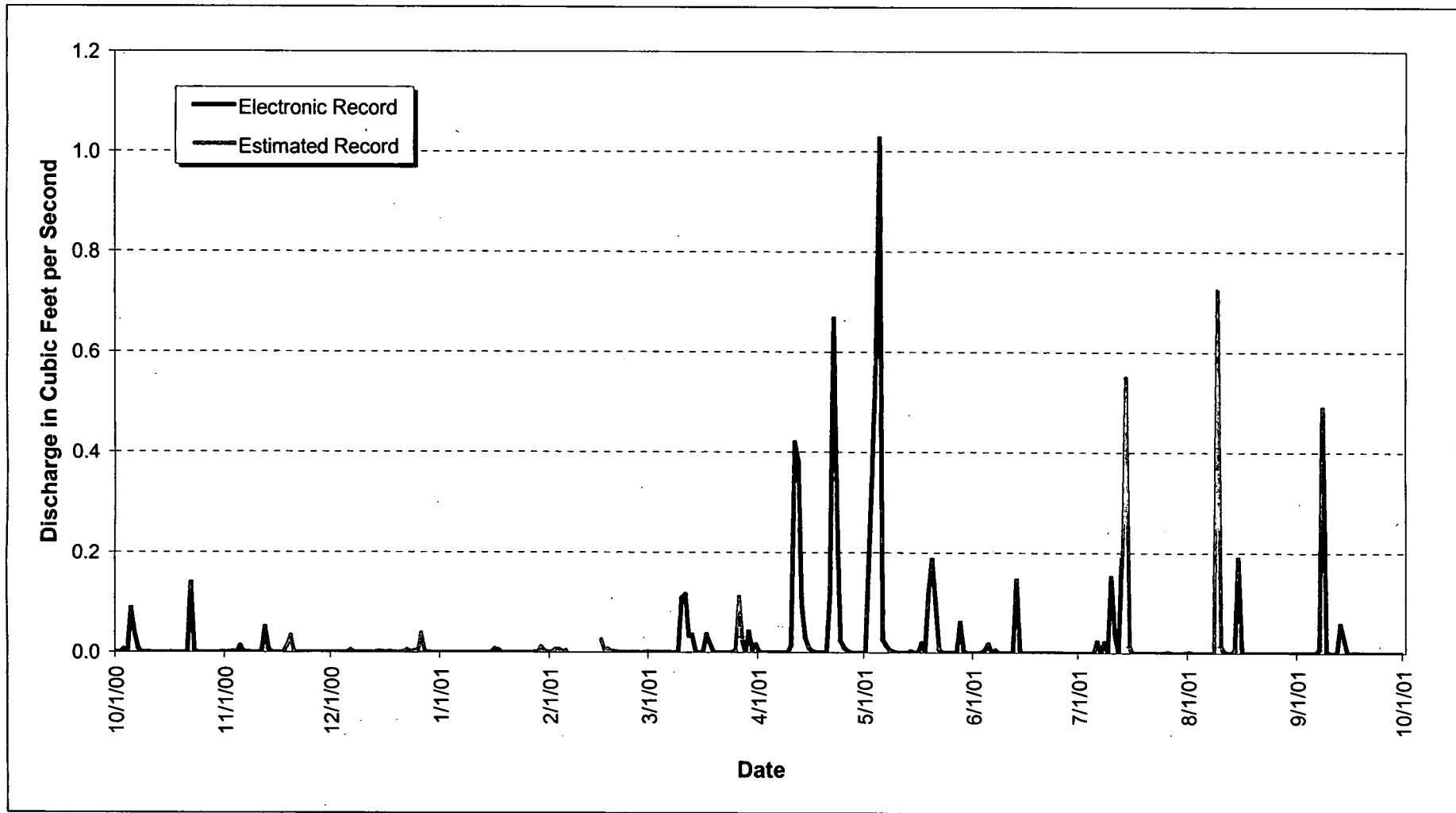


Figure 3-61. WY01 Mean Daily Hydrograph at GS38: Central Avenue Ditch at Eighth Street.

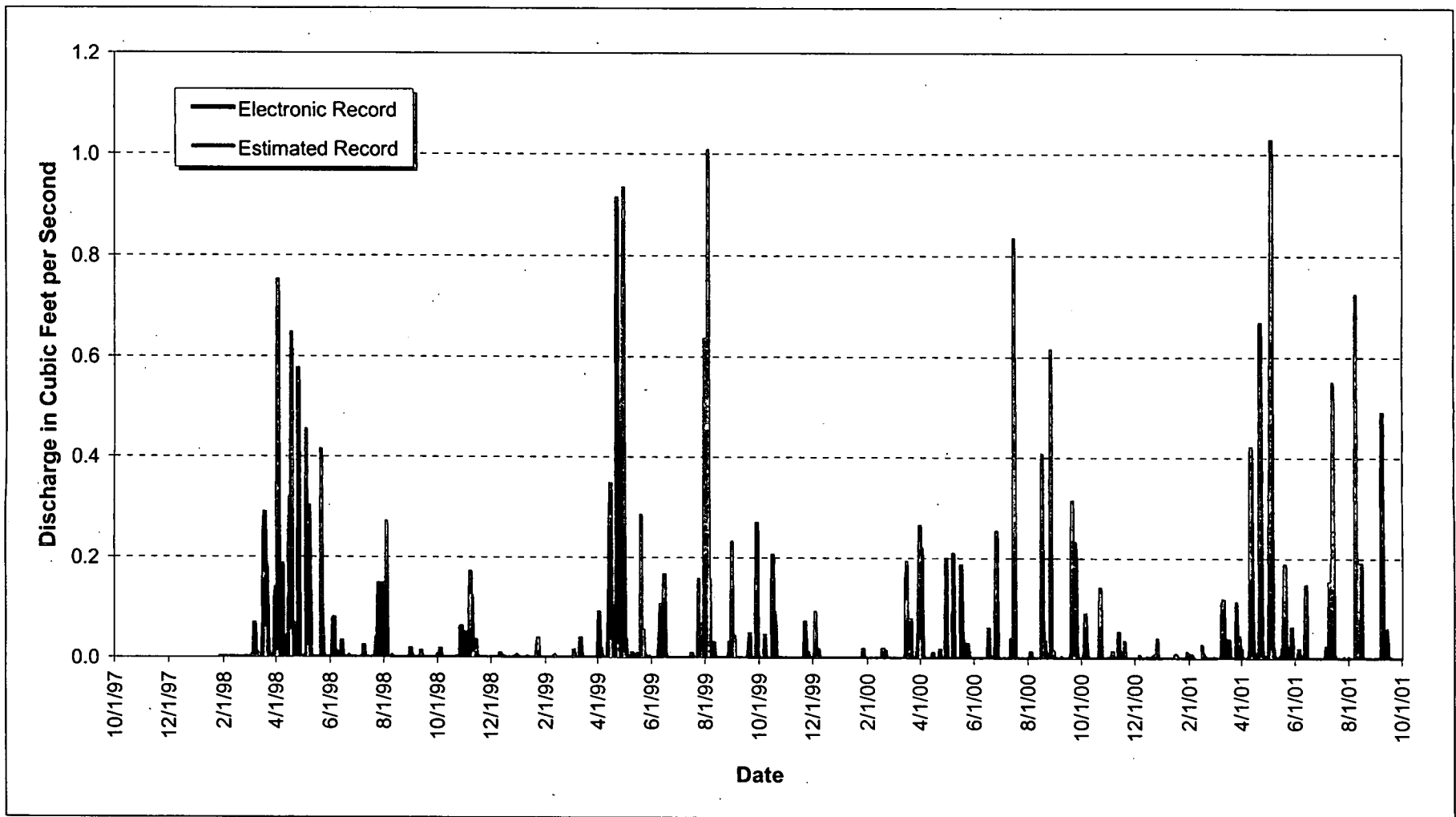


Figure 3-62. WY98-01 Mean Daily Hydrograph at GS38: Central Avenue Ditch at Eighth Street.

3.2.22 GS39: 903/904 Pad Subdrainage Area

Location

Ditch NW of 903 Pad; State Plane: 2085175, 749286

Drainage Area

- * The basin includes a portion of the Contractor Yard, the 904 Pad, and the west side of the 903 Pad (total of 8.1 acres)
- * IA Areas draining to GS39: 900

Period of Record

1/15/98 to current year

Gage

Water-stage recorder and 1' H-flume

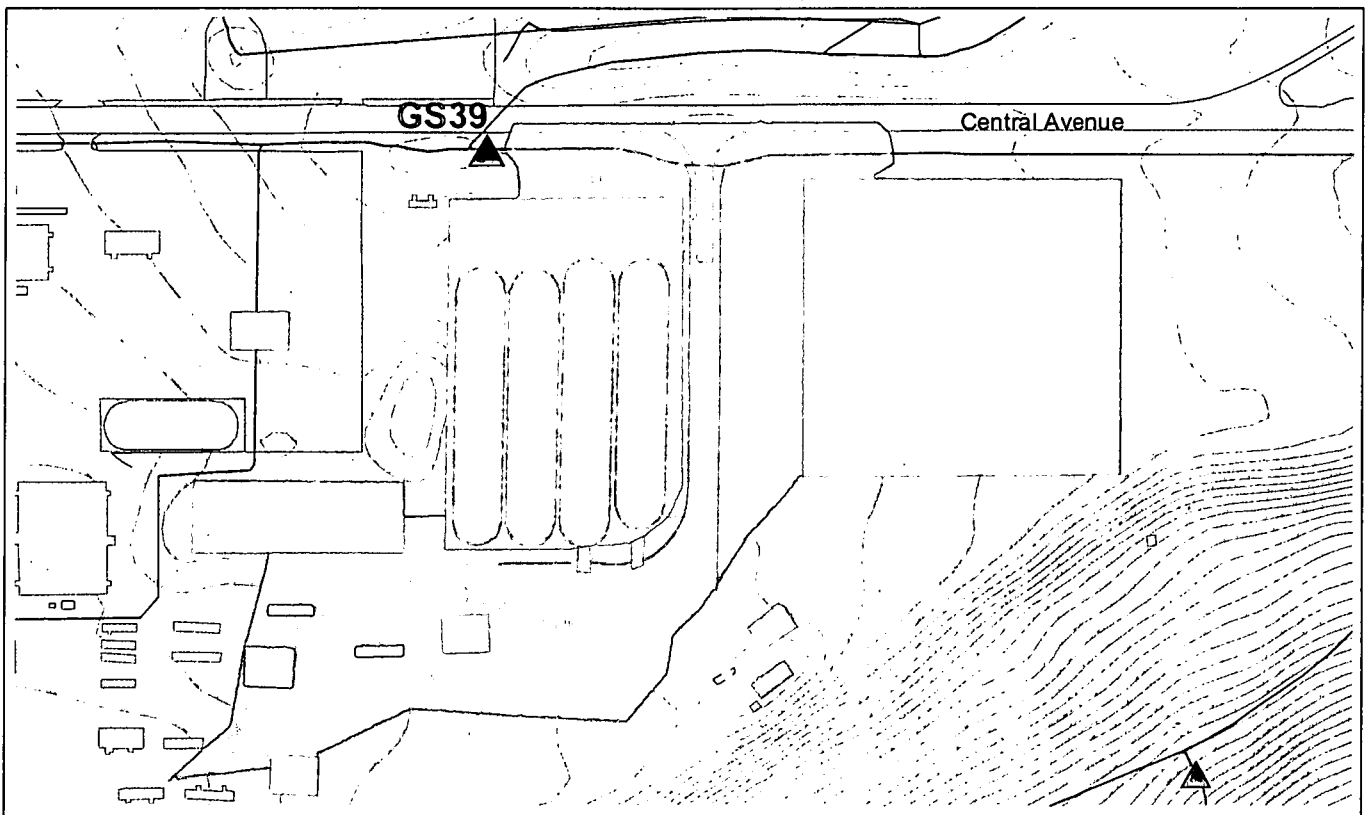


Figure 3-63. Map Showing GS39 Drainage Area.

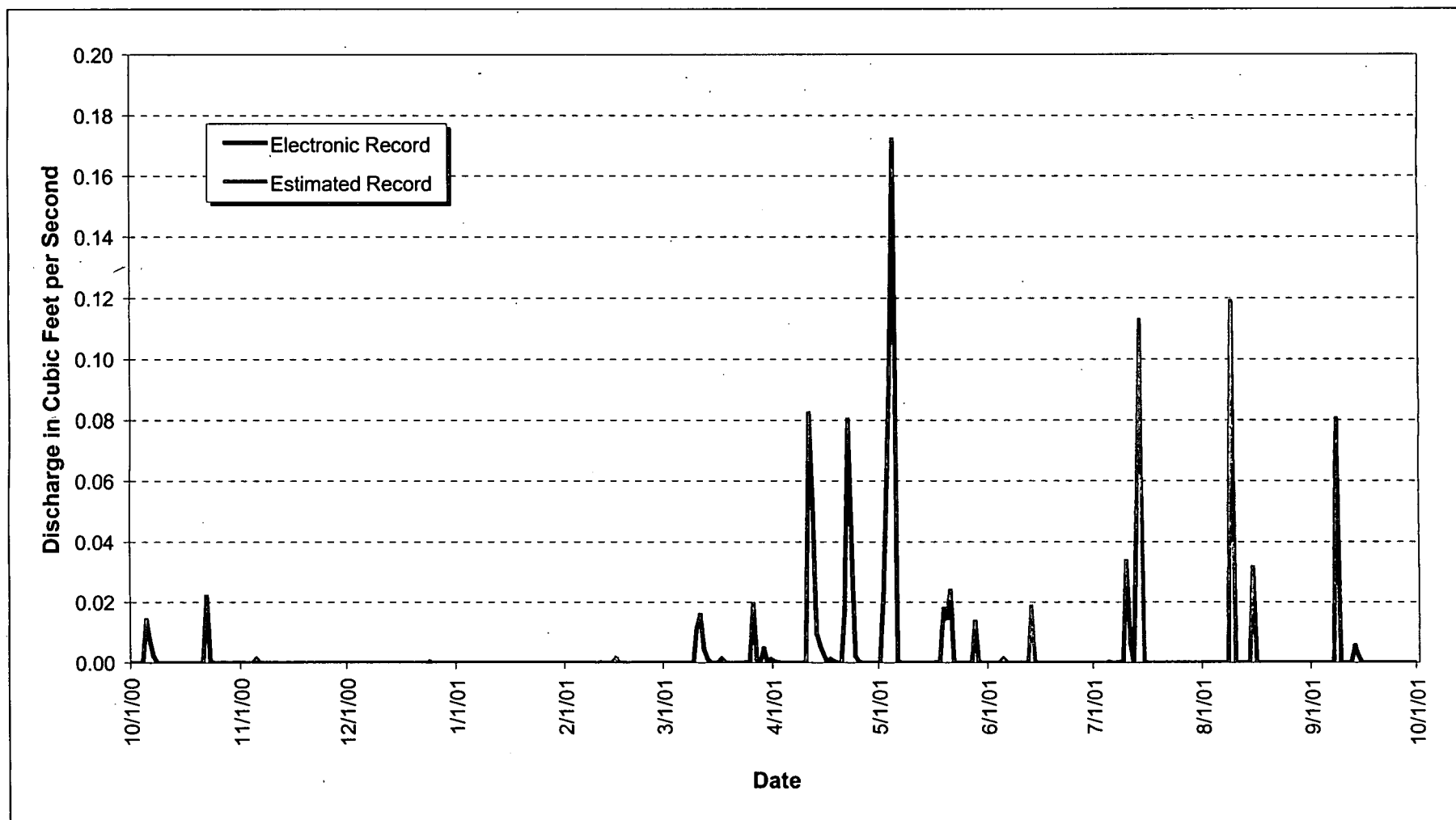


Figure 3-64. WY01 Mean Daily Hydrograph at GS39: 903/904 Pad Subdrainage Area.

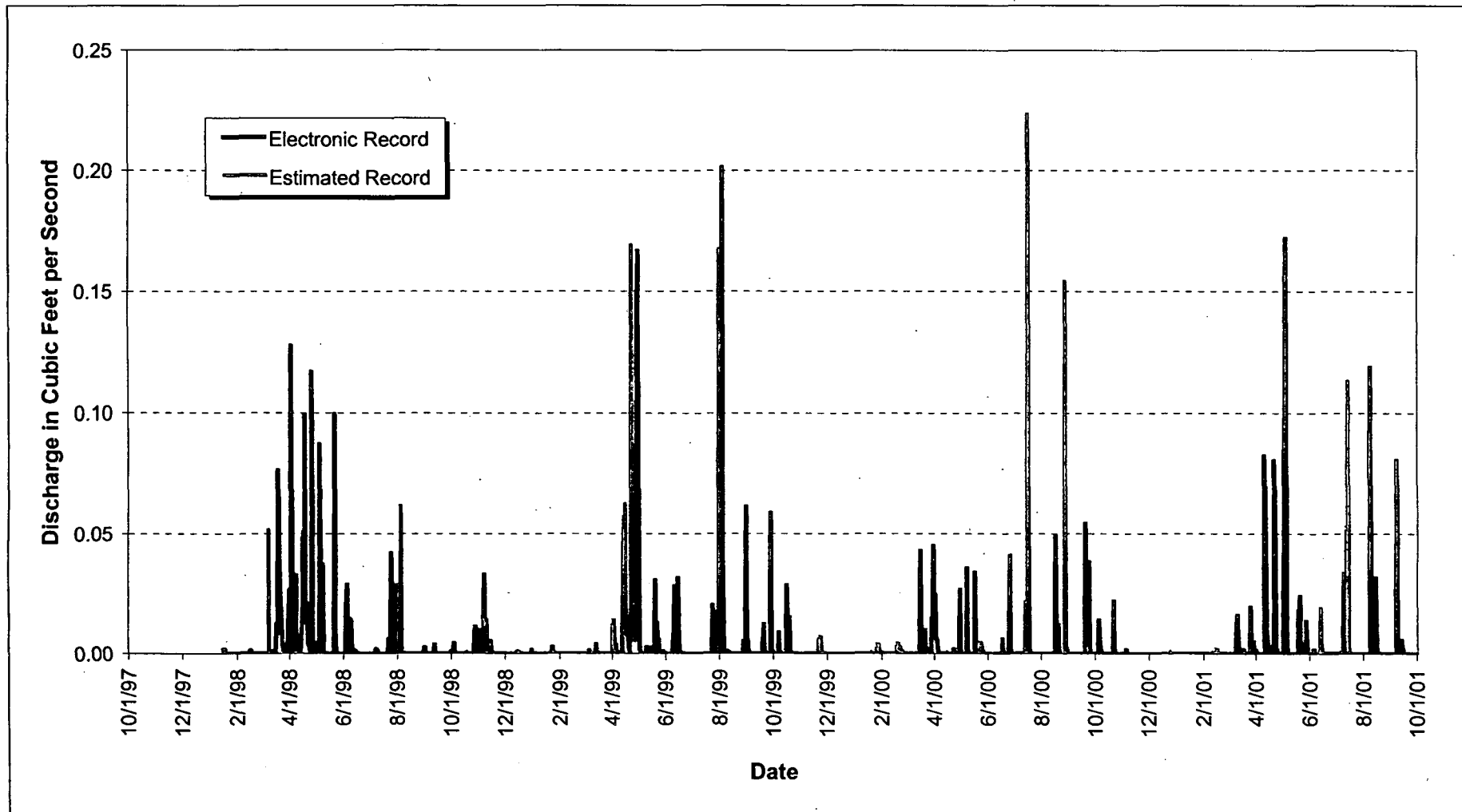


Figure 3-65. WY98-01 Mean Daily Hydrograph at GS39: 903/904 Pad Subdrainage Area.

3.2.23 GS40: South Walnut Creek East of 750 Pad

Location

700 Area outfall to N. Walnut Cr. east of 750 Pad; State Plane: 2084748, 749938

Drainage Area

- * The basin includes a portion of the 700 Area inside the PA (total of 24.4 acres)
- * IA Areas draining to GS40: 700

Period of Record

3/4/98 to current year

Gage

Water-stage recorder and 1' Parshall flume

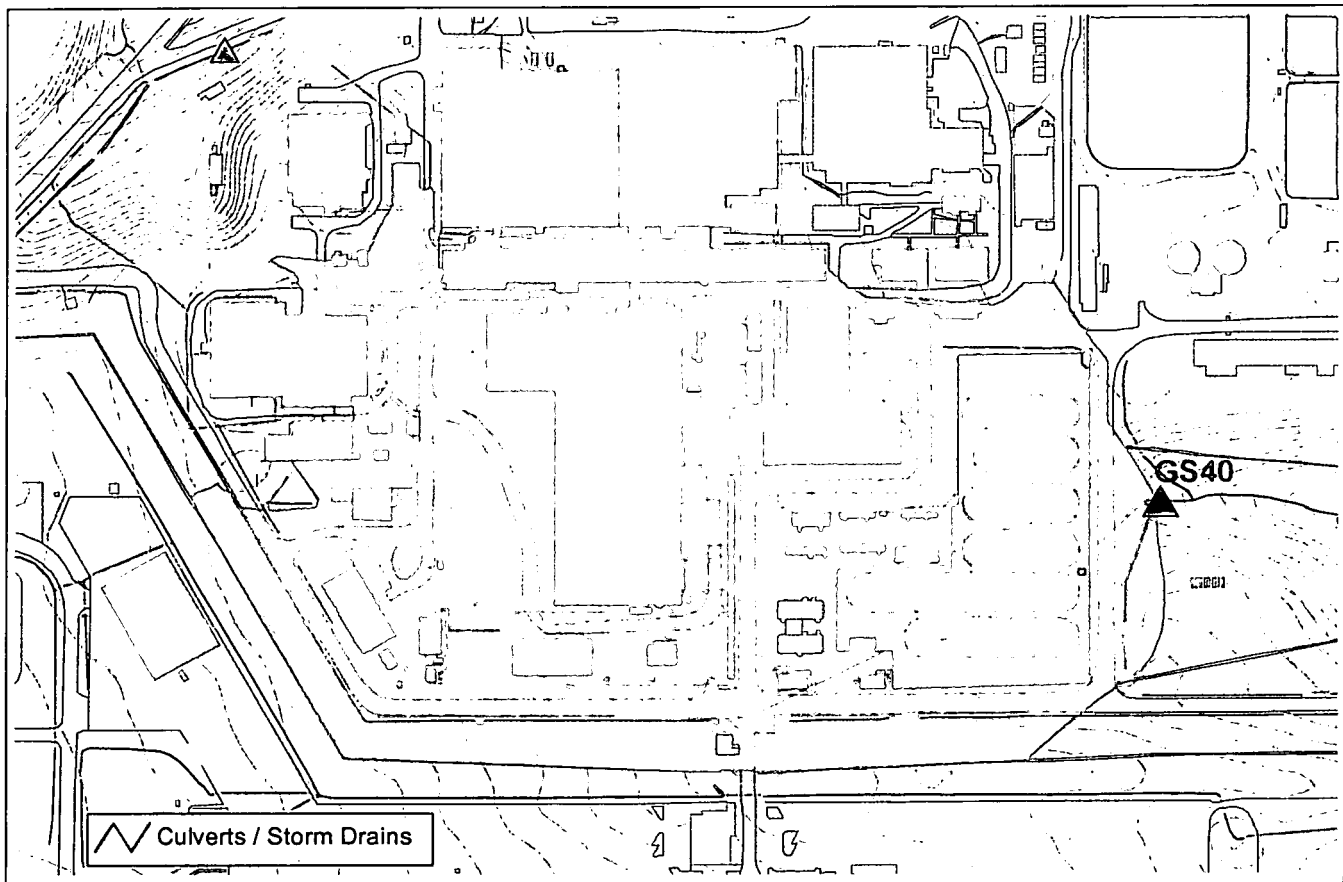


Figure 3-66. Map Showing GS40 Drainage Area.

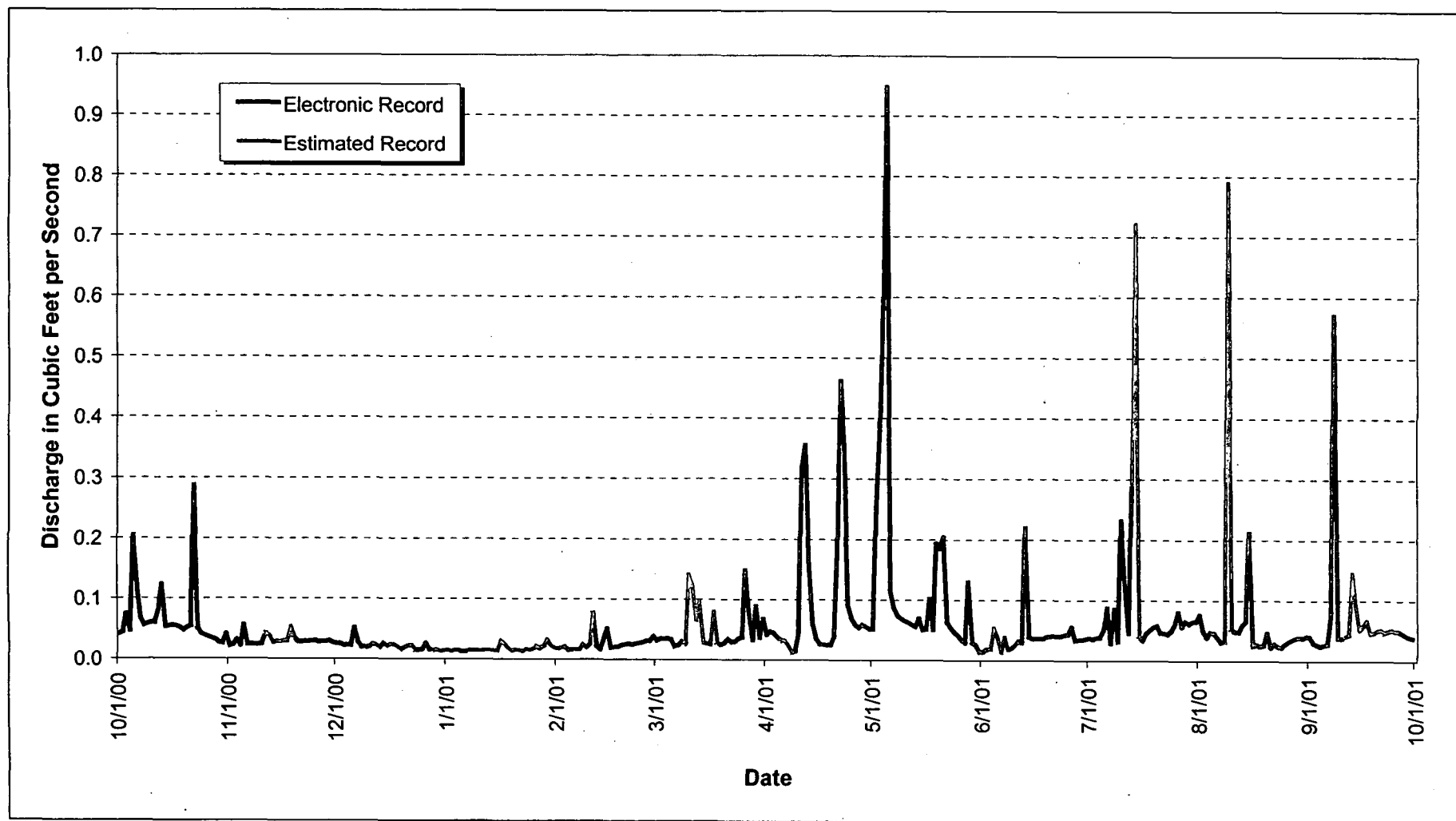


Figure 3-67. WY01 Mean Daily Hydrograph at GS40: South Walnut Creek East of 750 Pad.

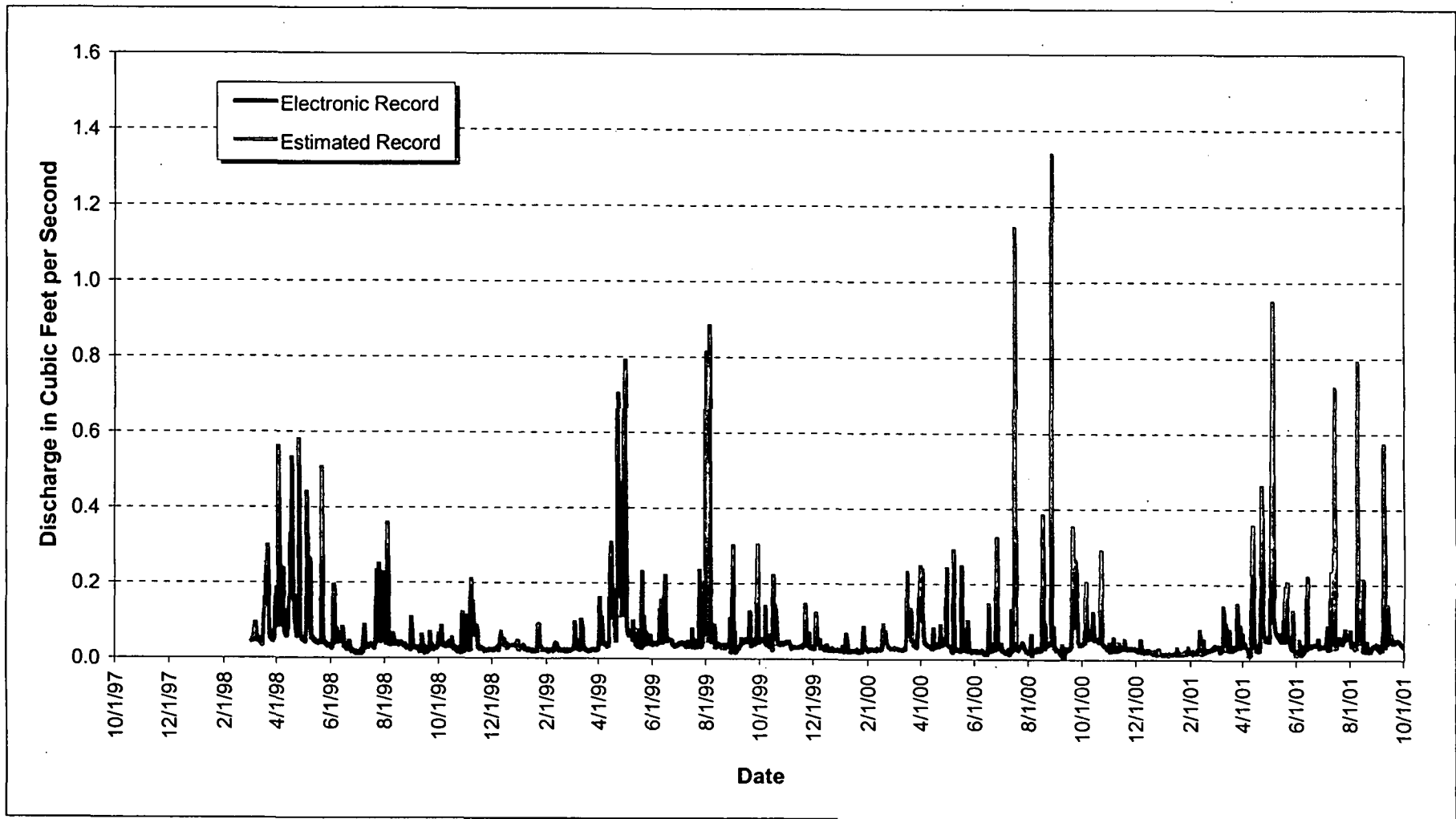


Figure 3-68. WY98-01 Mean Daily Hydrograph at GS40: South Walnut Creek East of 750 Pad.

3.2.24 GS41: Unnamed Gulch Tributary to Walnut Creek Southwest of GS03

Location

Small gulch SW of GS03; State Plane: 2093188, 753472

Drainage Area

- * The basin includes the gulch only (total of 13.6 acres)
- * IA Areas draining to GS41: none

Period of Record

6/10/98 to current year

Gage

Water-stage recorder and 0.5' H-flume

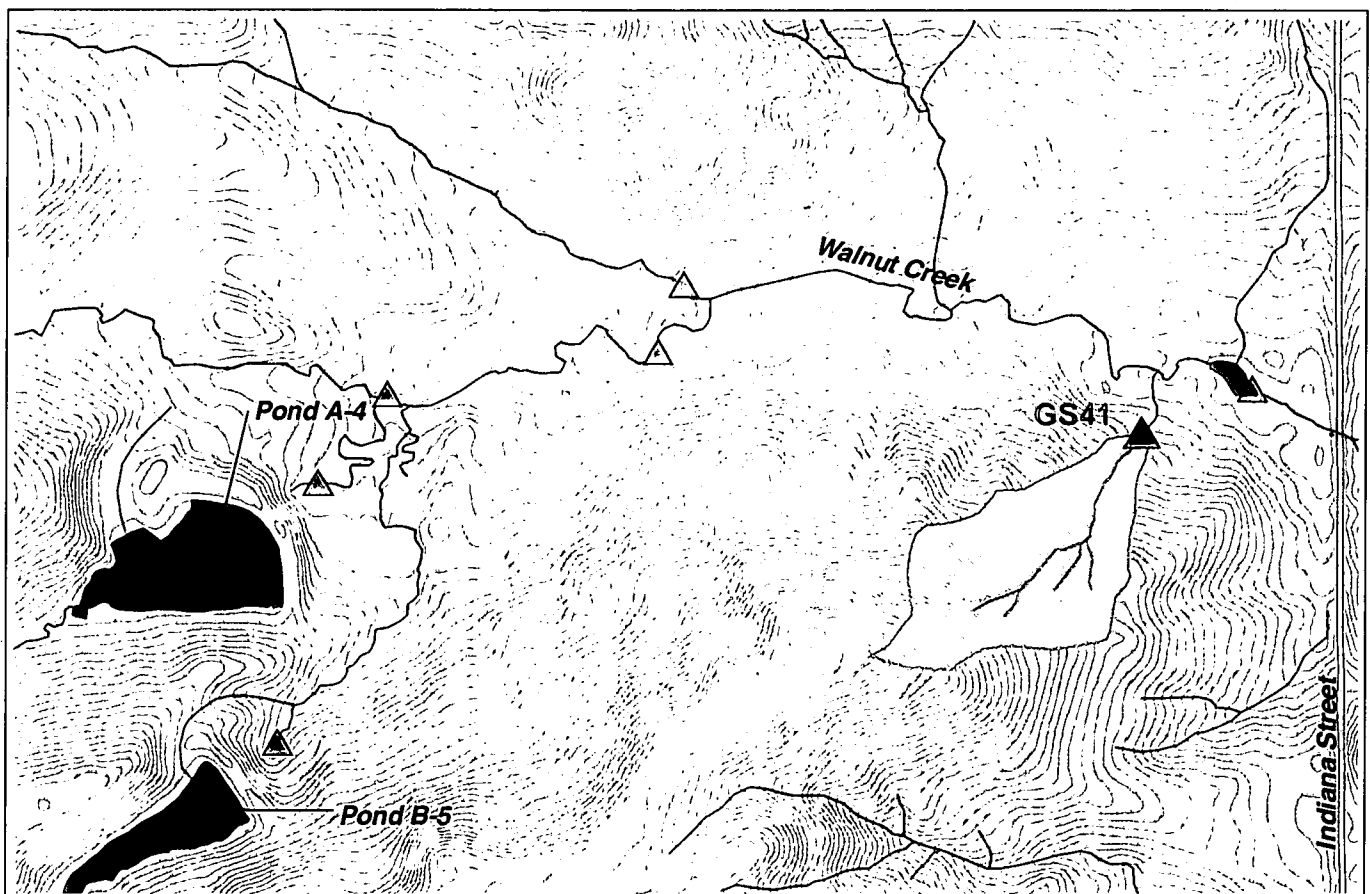


Figure 3-69. Map Showing GS41 Drainage Area.

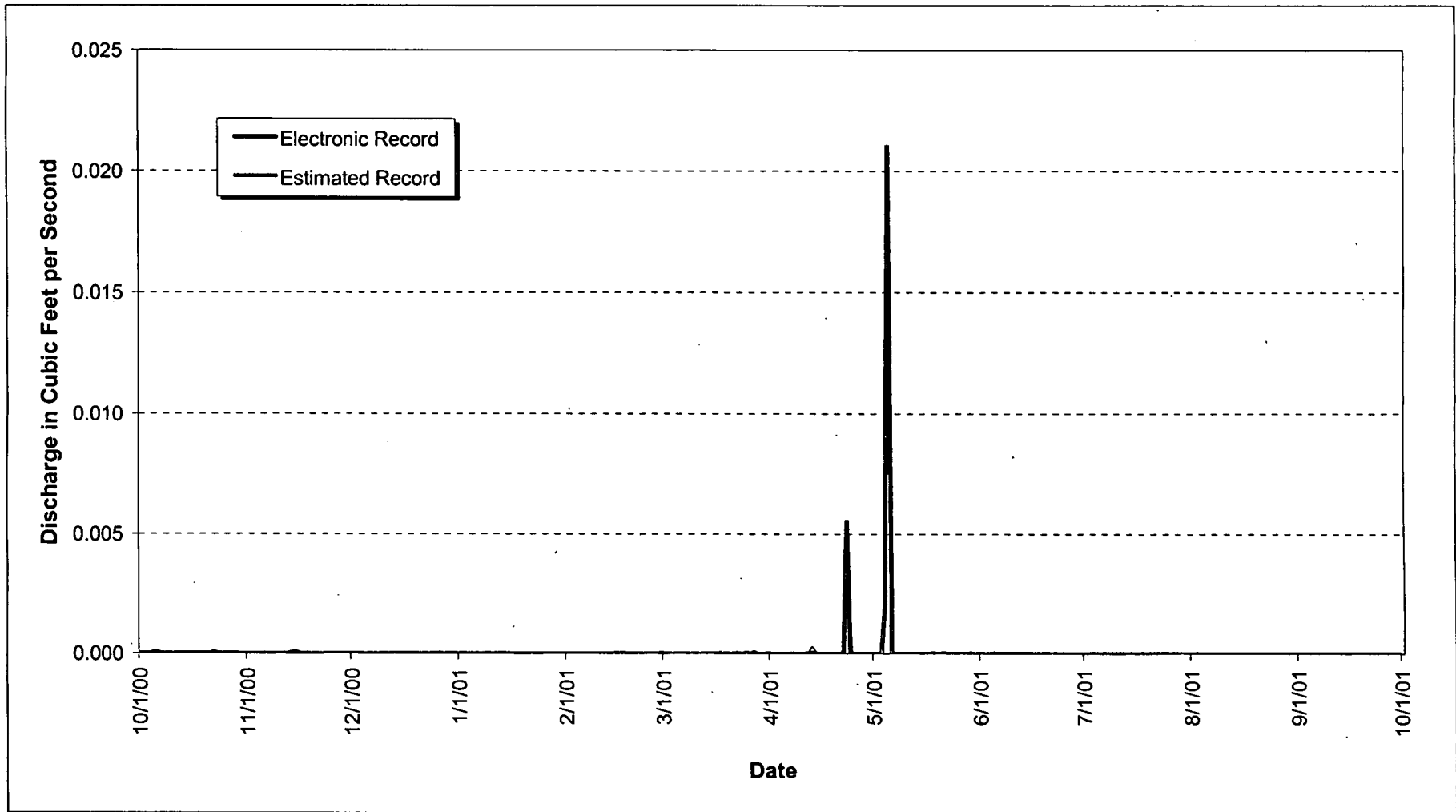


Figure 3-70. WY01 Mean Daily Hydrograph at GS41: Unnamed Walnut Creek Tributary.

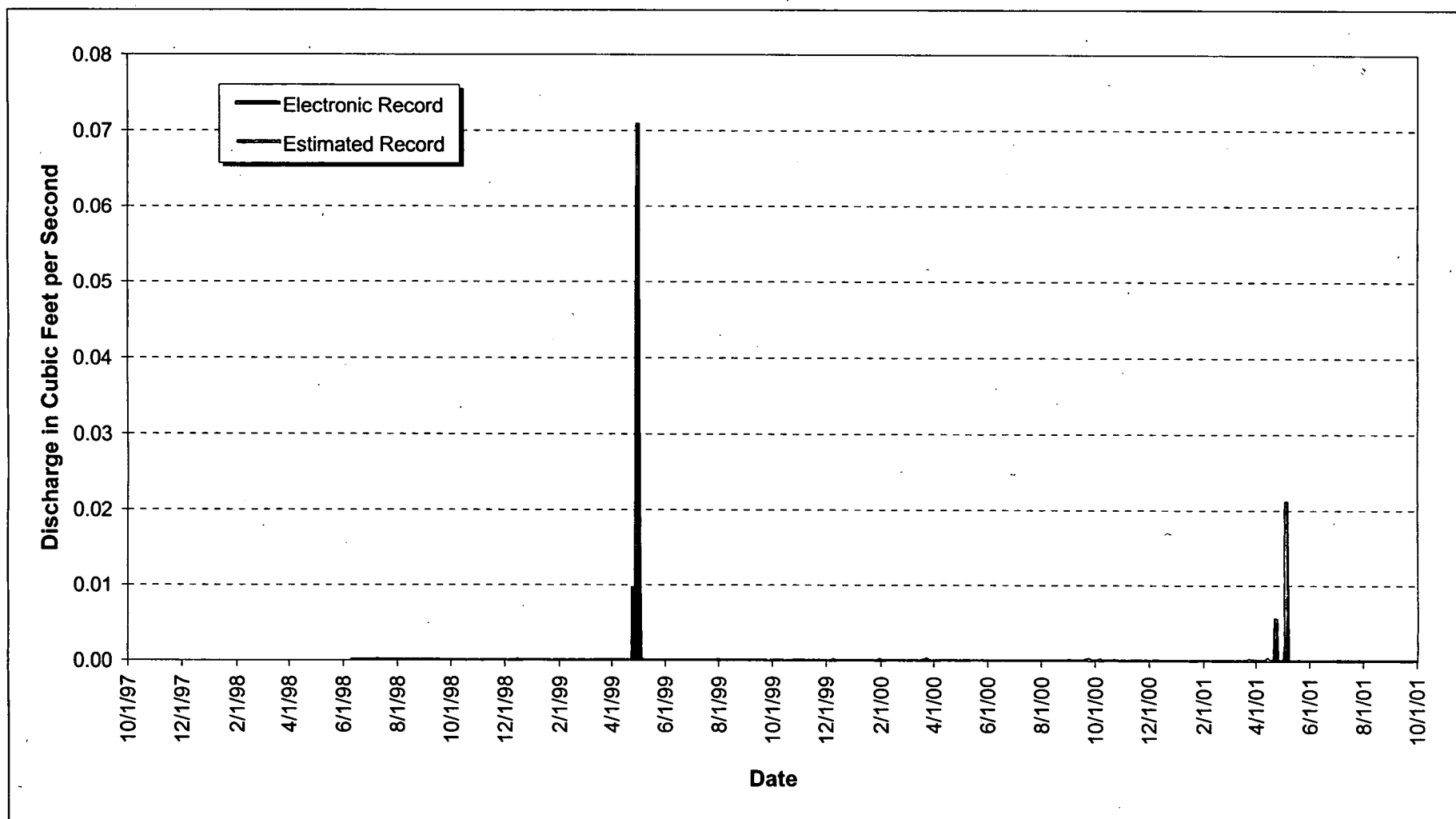


Figure 3-71. WY98-01 Mean Daily Hydrograph at GS41: Unnamed Walnut Creek Tributary.

3.2.25 GS42: Unnamed Gulch Tributary to the SID North of SW027

Location

Unnamed gulch tributary to the SID north of SW027; State Plane: 2088476, 748237

Drainage Area

- * The basin includes a portion of the West Access Road (total of 45.2 acres)
- * IA Areas draining to GS42: none

Period of Record

6/23/98 to current year

Gage

Water-stage recorder and 3" Parshall flume

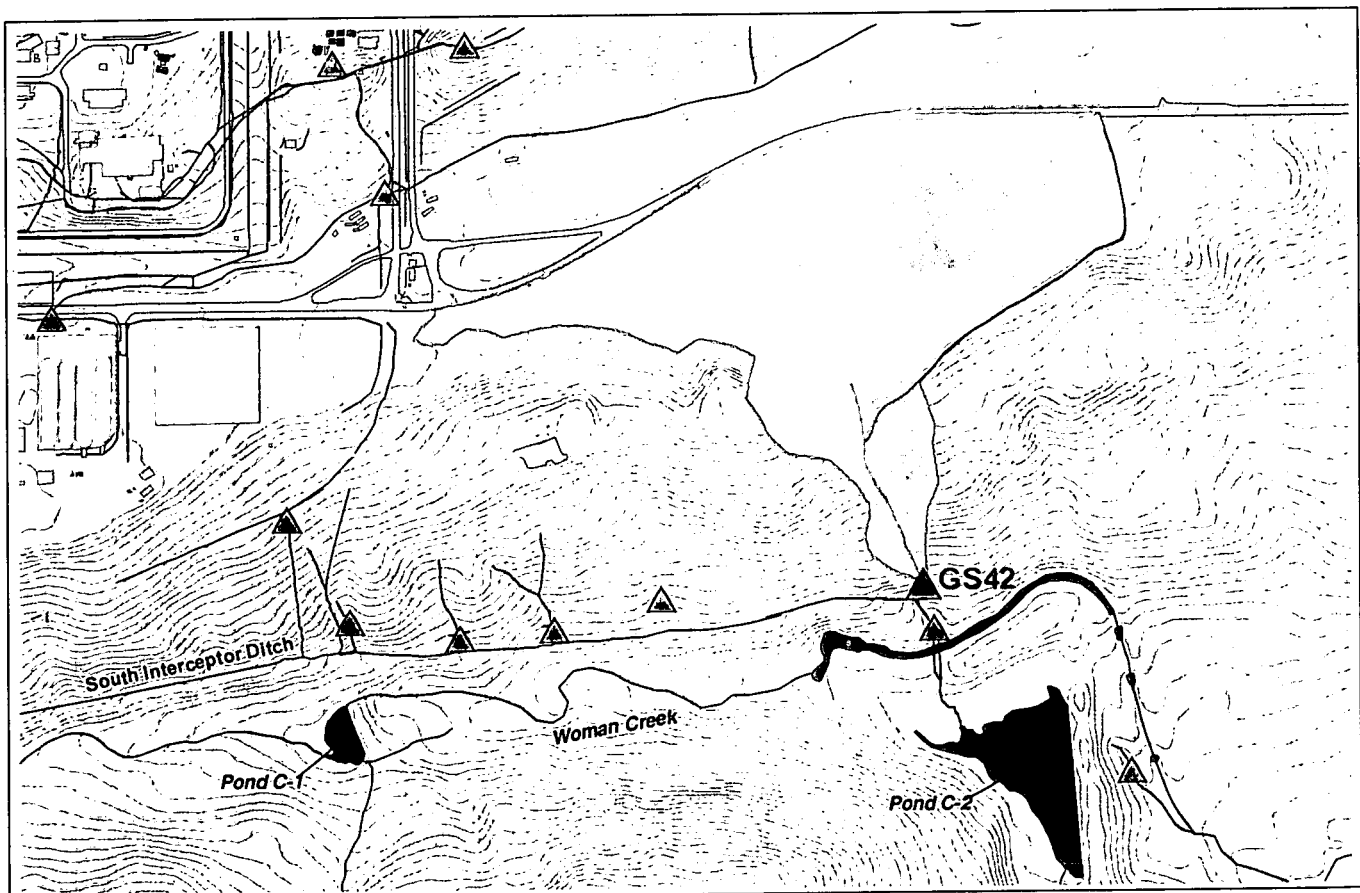


Figure 3-72. Map Showing GS42 Drainage Area.

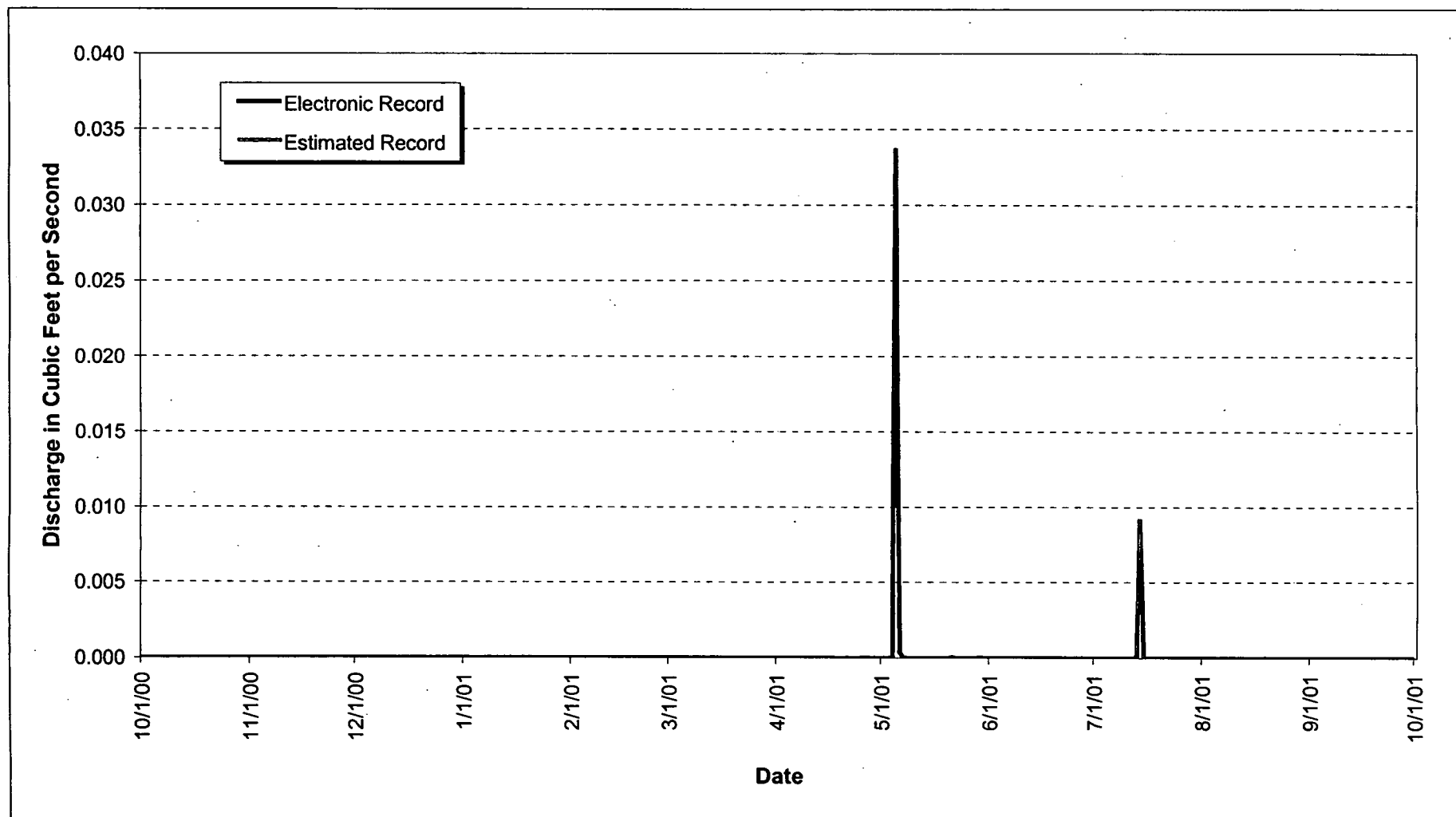


Figure 3-73. WY01 Mean Daily Hydrograph at GS42: Unnamed Gulch Tributary to SID.

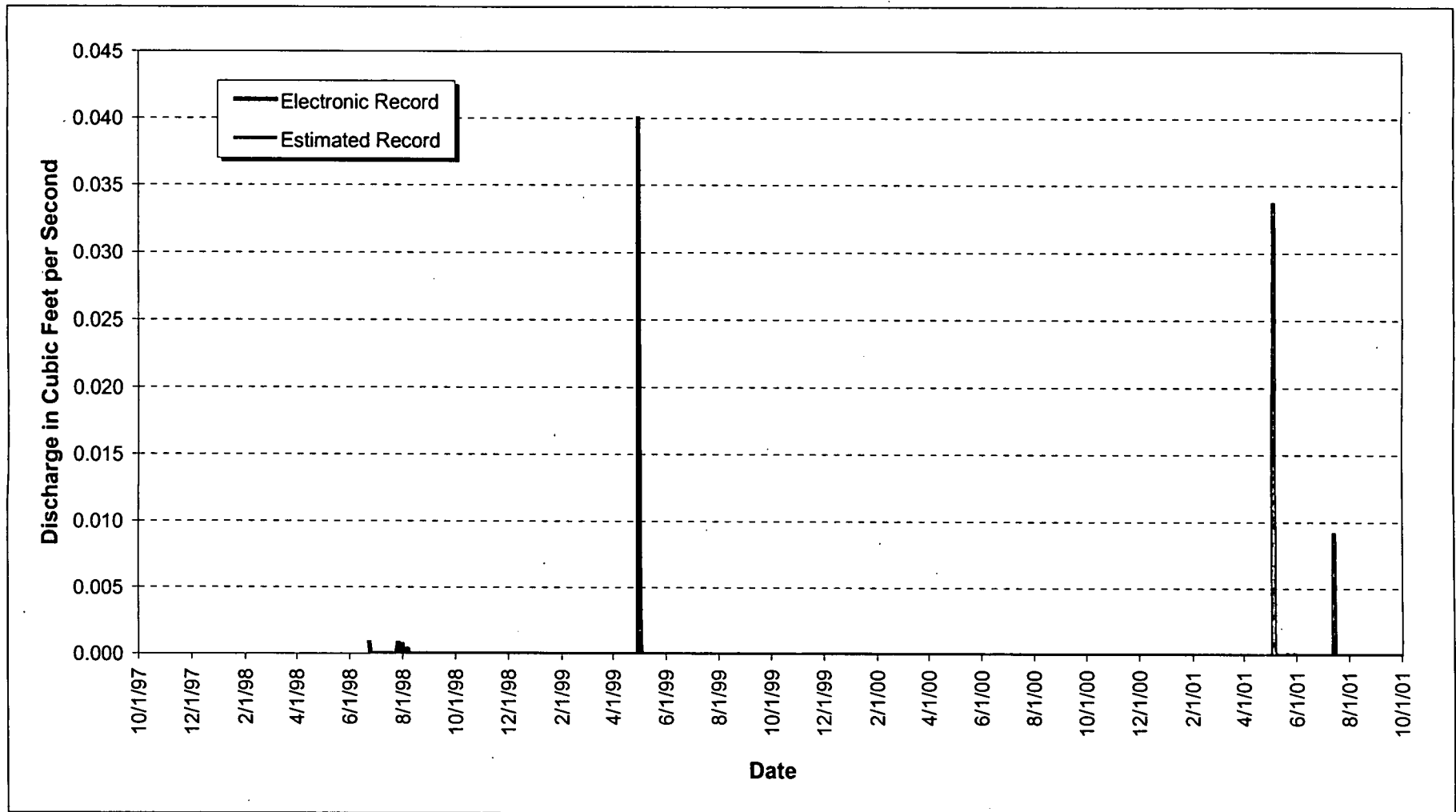


Figure 3-74. WY98-01 Mean Daily Hydrograph at GS42: Unnamed Gulch Tributary to SID.

3.2.26 GS43: Building 886 Subdrainage Area

Location

B886 subdrainage; State Plane: 2084513, 749206

Drainage Area

- * The basin includes the areas surrounding B886 (total of 1.1 acres)
- * IA Areas draining to GS43: 800

Period of Record

6/1/99 to current year

Gage

Water-stage recorder and 0.75' H-flume

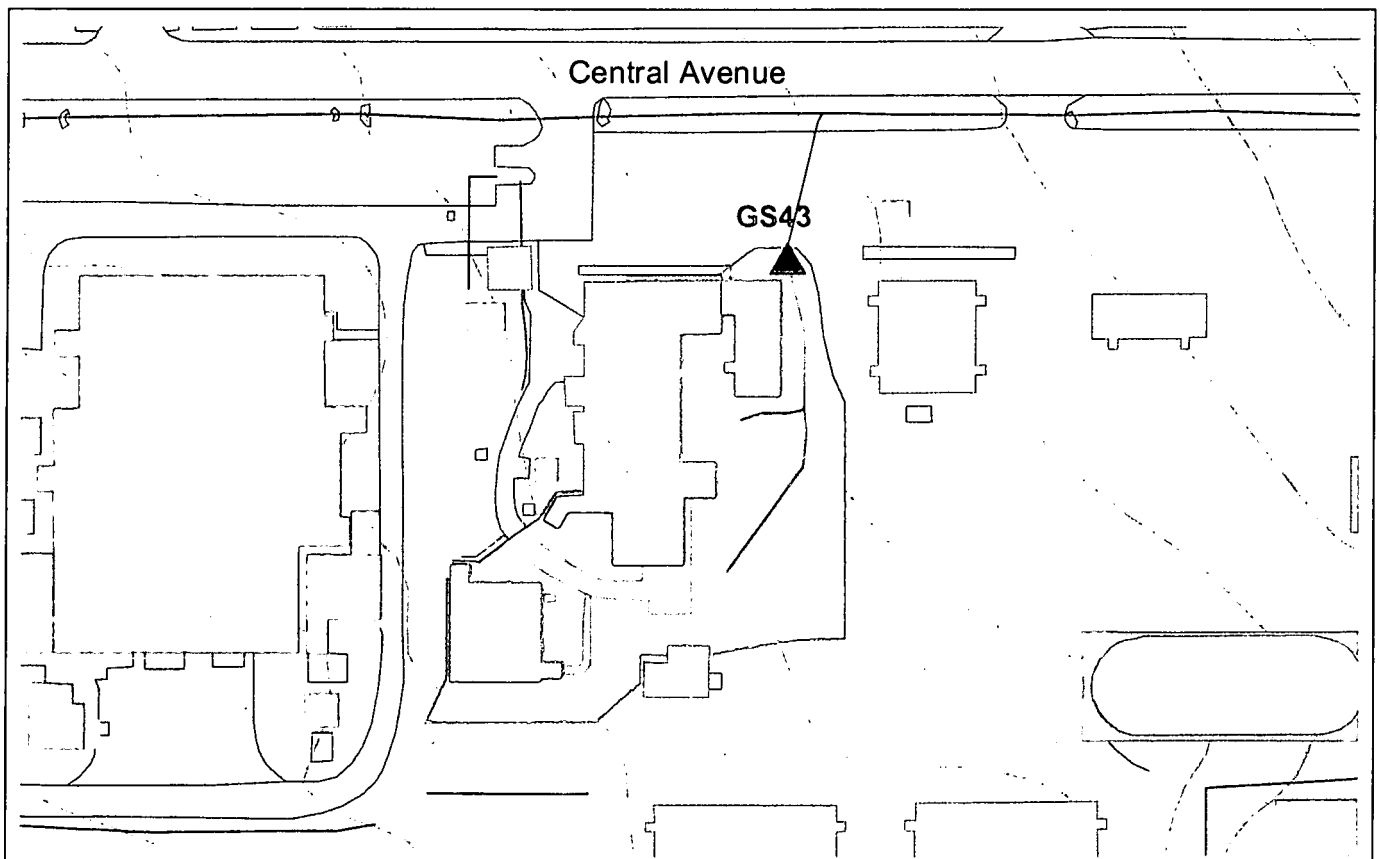


Figure 3-75. Map Showing GS43 Drainage Area.

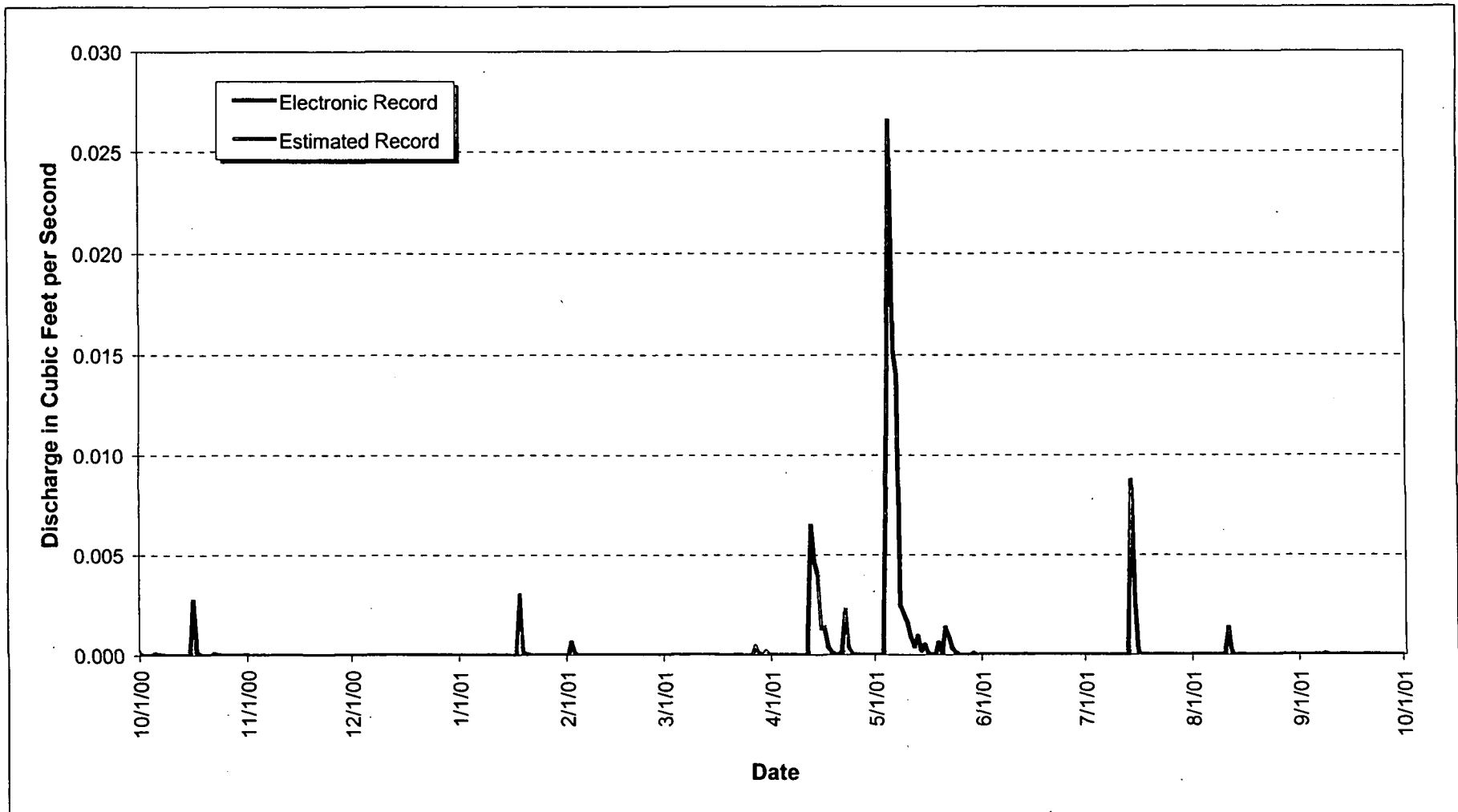


Figure 3-76. WY01 Mean Daily Hydrograph at GS43: B886 Subdrainage.

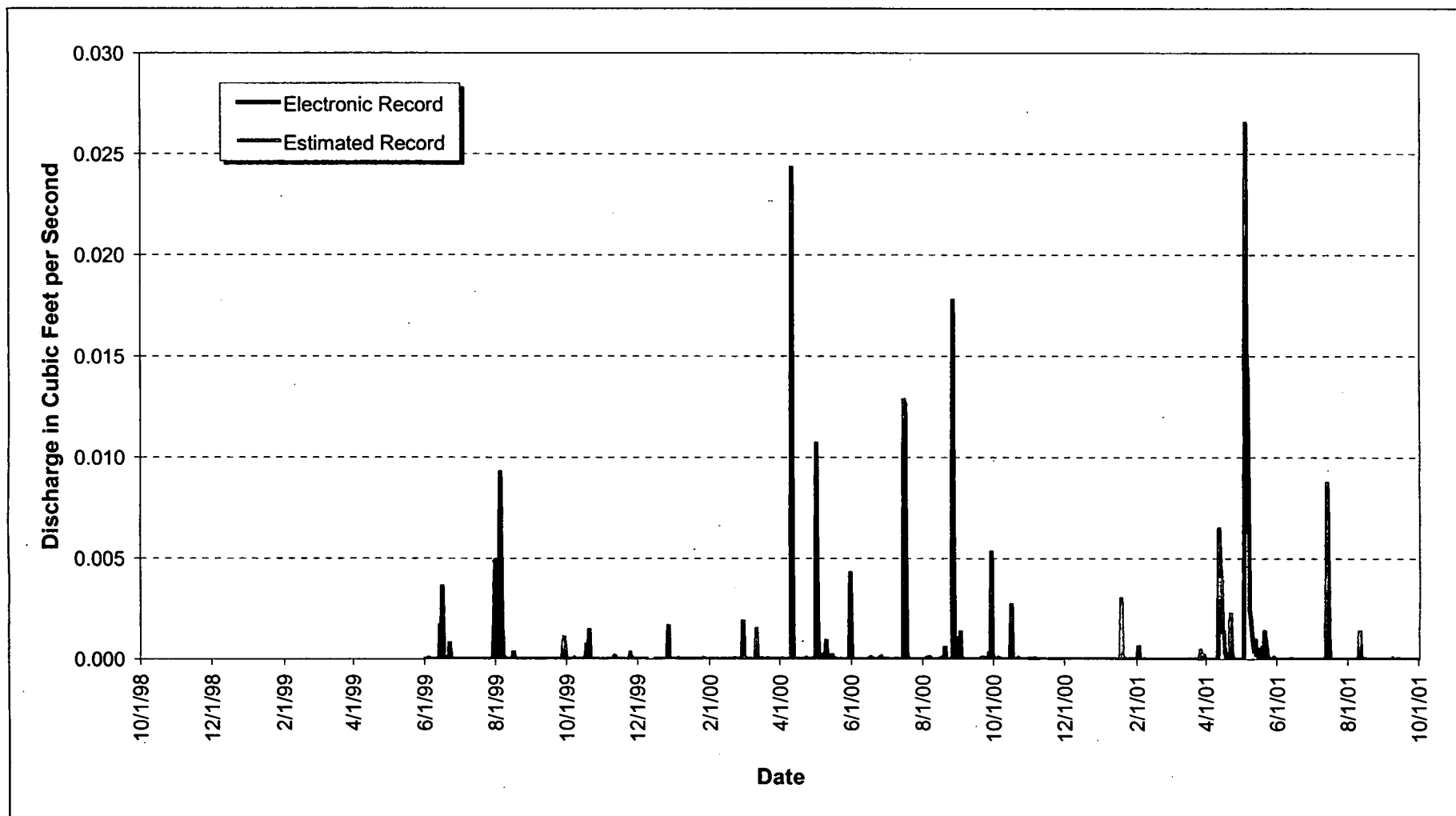


Figure 3-77. WY99-01 Mean Daily Hydrograph at GS43: B886 Subdrainage.

3.2.27 GS44: Ditch West of B771 North of T771L

Location

End of cmp between T771L and T771F; State Plane: 2083411, 751100

Drainage Area

- * The basin includes areas on the west side of B771 (total of 4.1 acres)
- * IA Areas draining to GS44: 700

Period of Record

10/4/00 to current year

Gage

Water-stage recorder and 1.0' H-flume

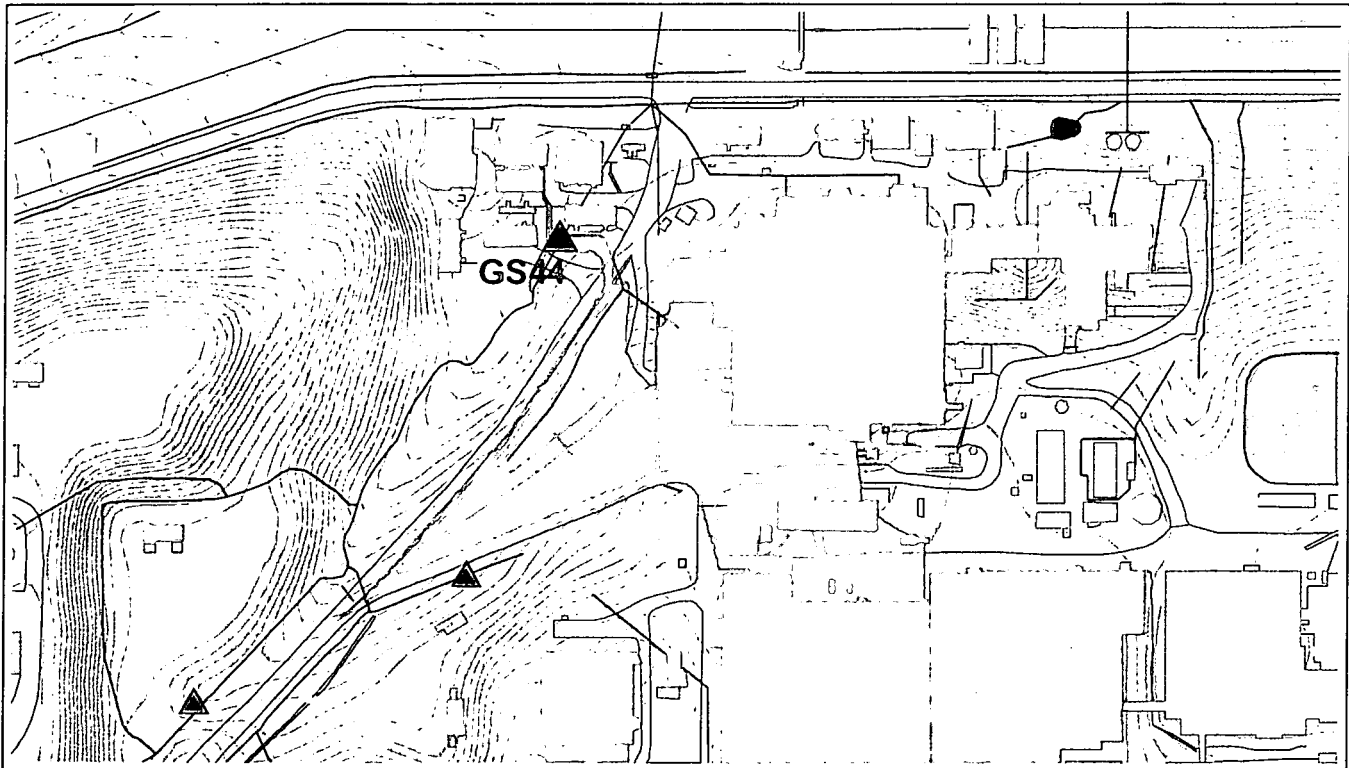


Figure 3-78. Map Showing GS44 Drainage Area.

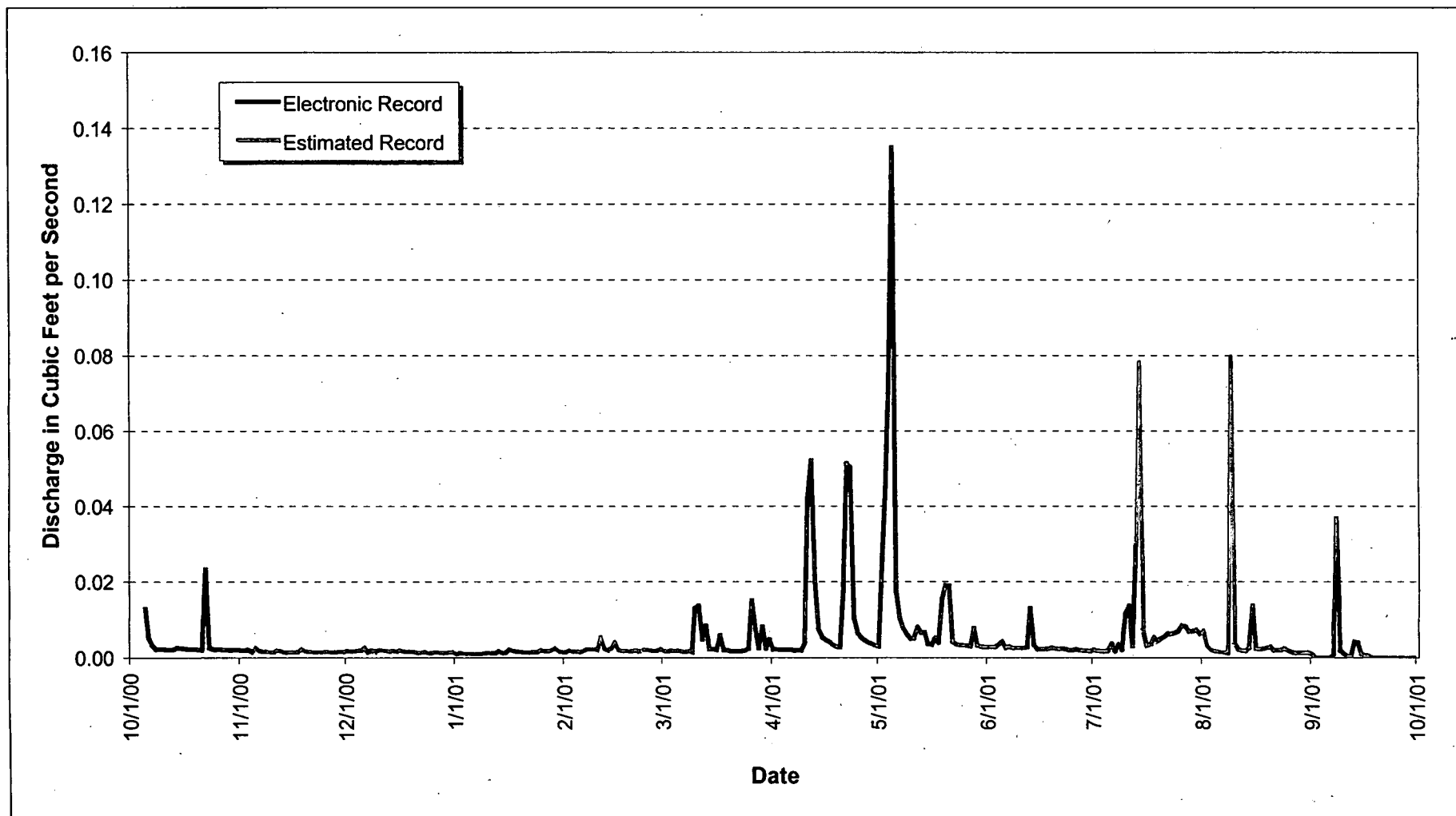


Figure 3-79. WY01 Mean Daily Hydrograph at GS44: Ditch West of B771 North of T771L.

3.2.28 GS45: Upper Church Ditch at West Gravel Pits

Location

Upper Church Ditch at West Gravel Pits; State Plane: 2076006, 748922

Drainage Area

- * The basin includes areas tributary to Upper Church Ditch west of the Site (total drainage acreage unknown)
- * IA Areas draining to GS45: none

Period of Record

4/10/00 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

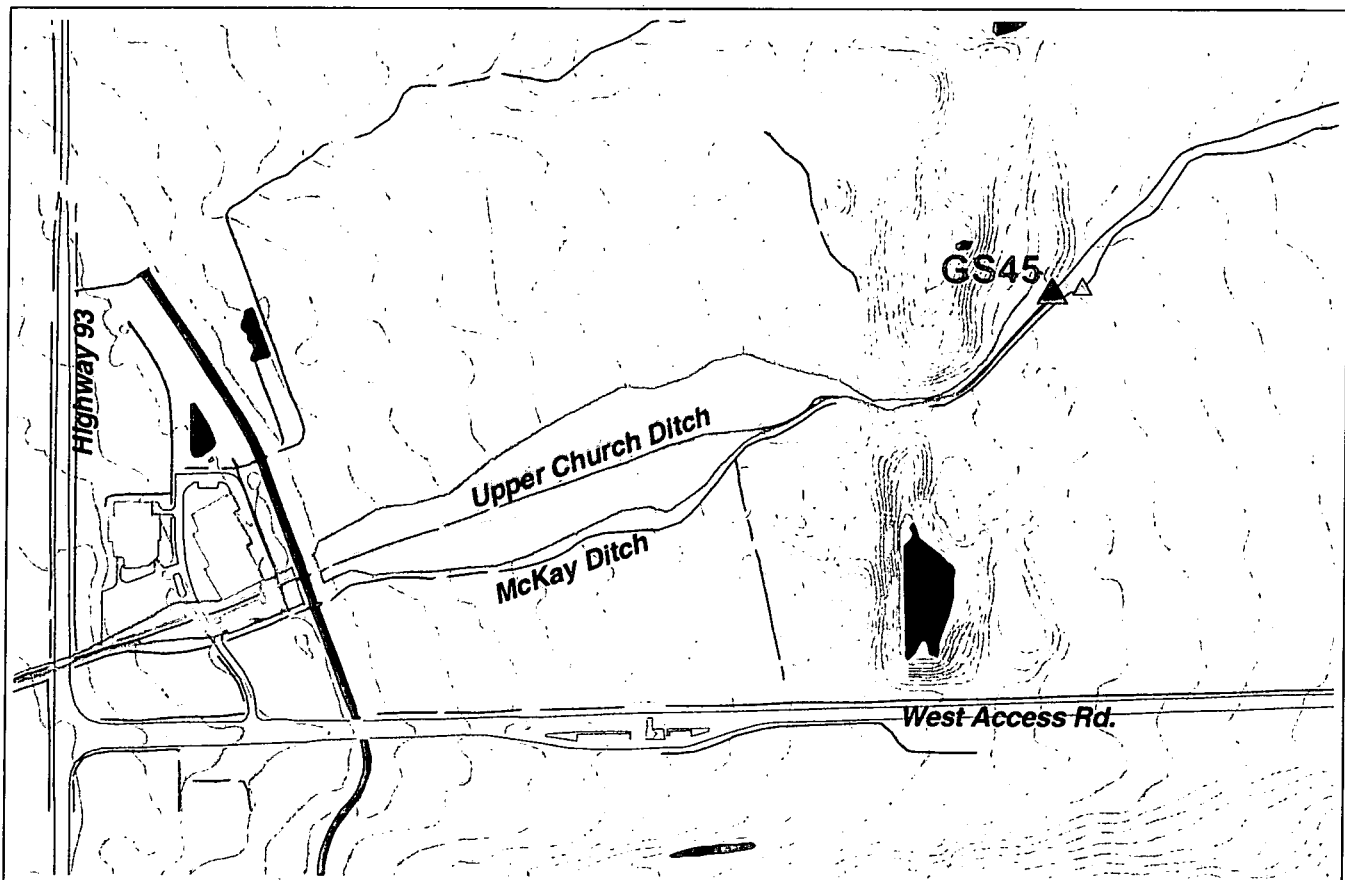


Figure 3-80. Map Showing GS45 Drainage Area.

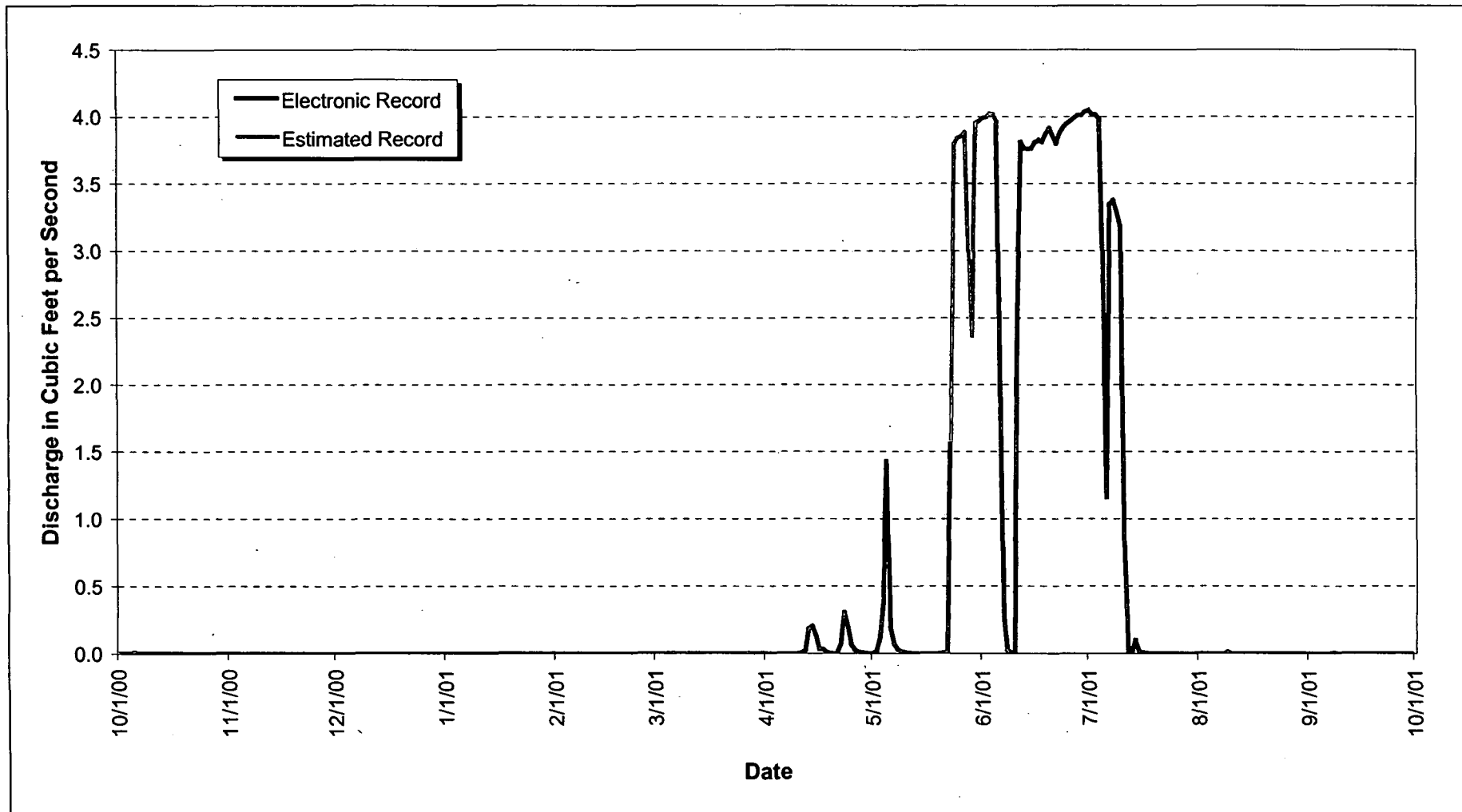


Figure 3-81. WY01 Mean Daily Hydrograph at GS45: Upper Church Ditch at West Gravel Pits.

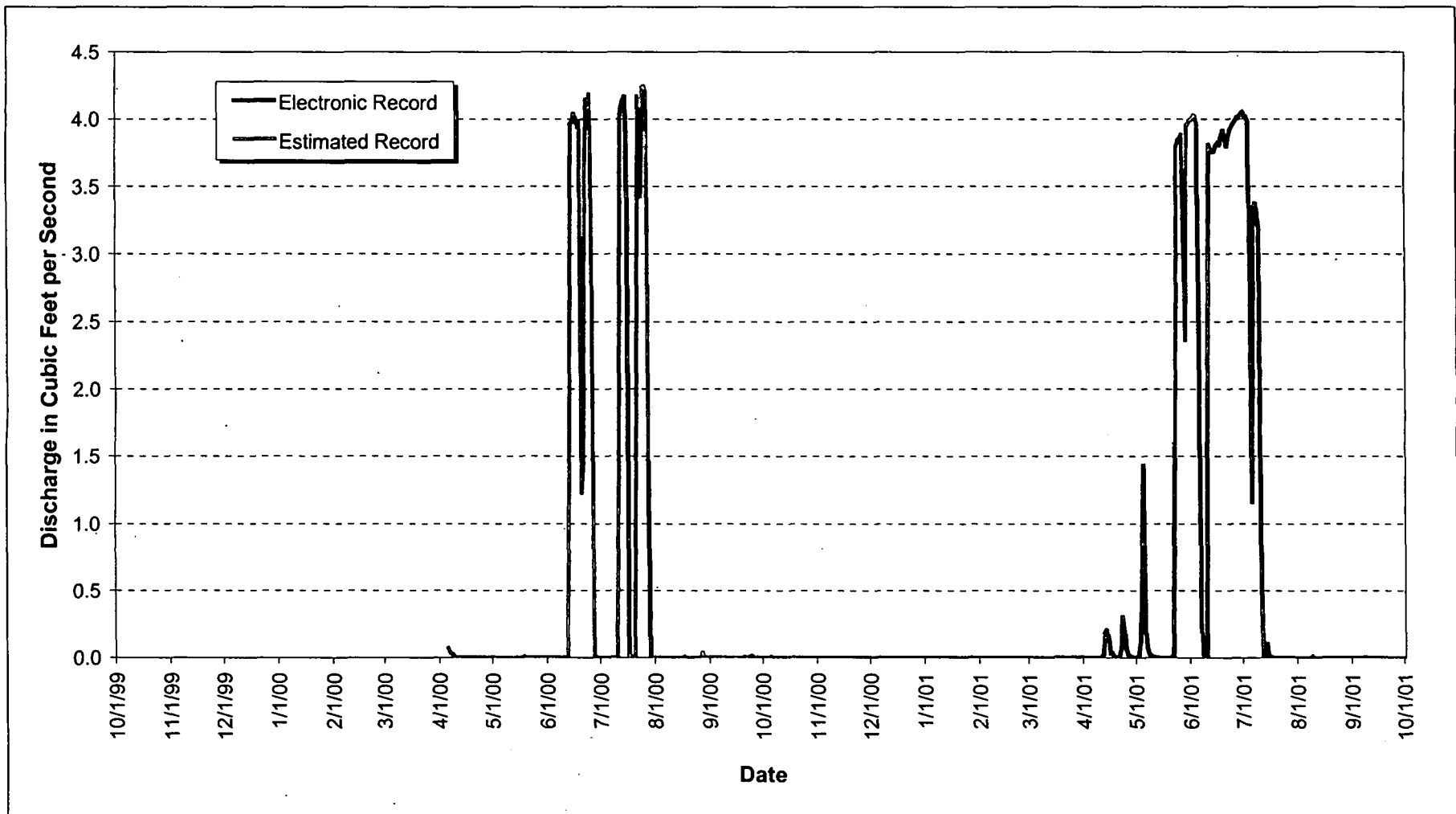


Figure 3-82. WY00-01 Mean Daily Hydrograph at GS45: Upper Church Ditch at West Gravel Pits.

3.2.29 GS46: McKay Ditch at West Gravel Pits

Location

McKay Ditch at West Gravel Pits; State Plane: 2076099, 748941

Drainage Area

- * The basin includes areas tributary to McKay Ditch west of the Site (total drainage acreage unknown)
- * IA Areas draining to GS46: none

Period of Record

4/11/00 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

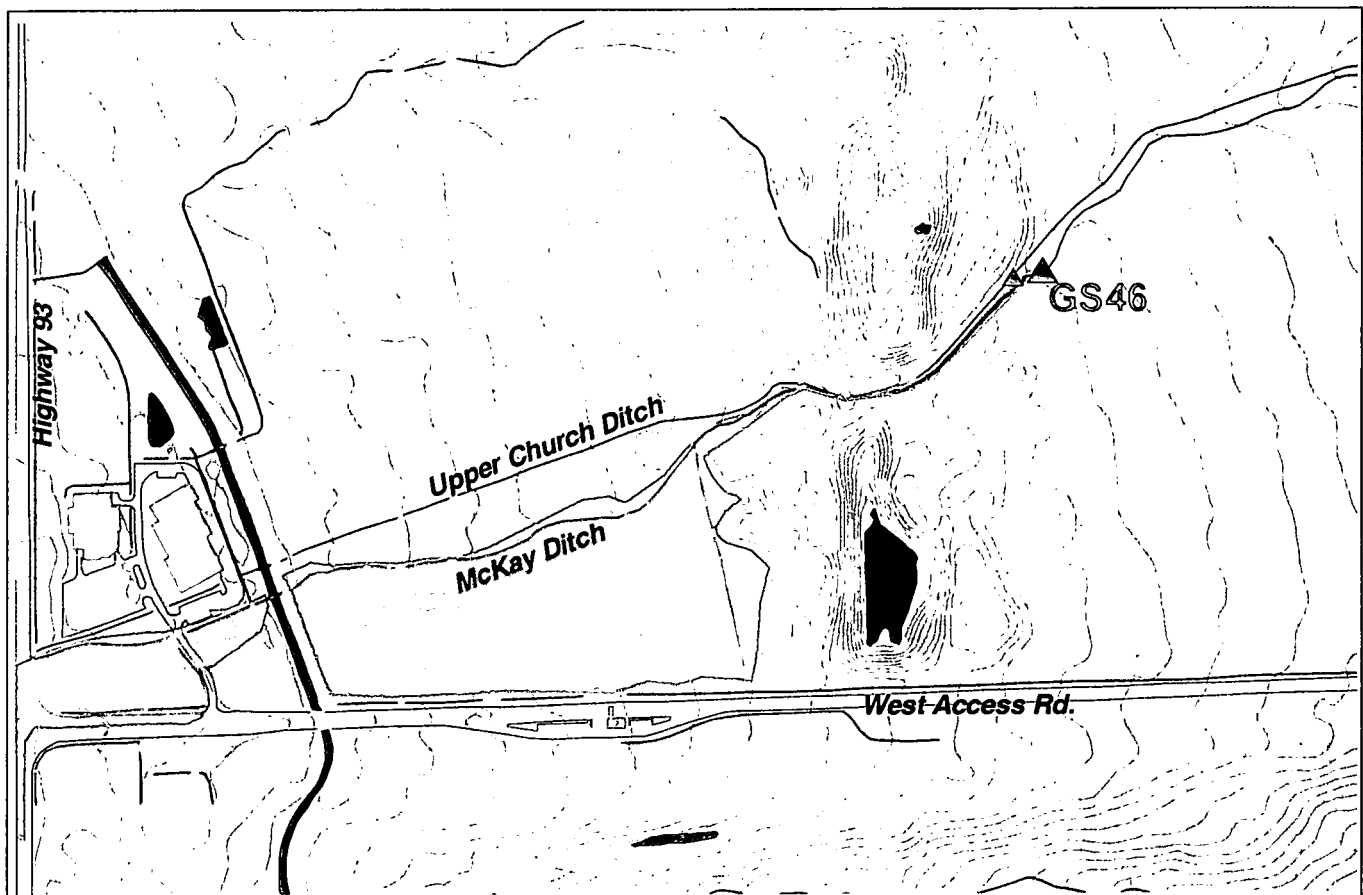


Figure 3-83. Map Showing GS46 Drainage Area.

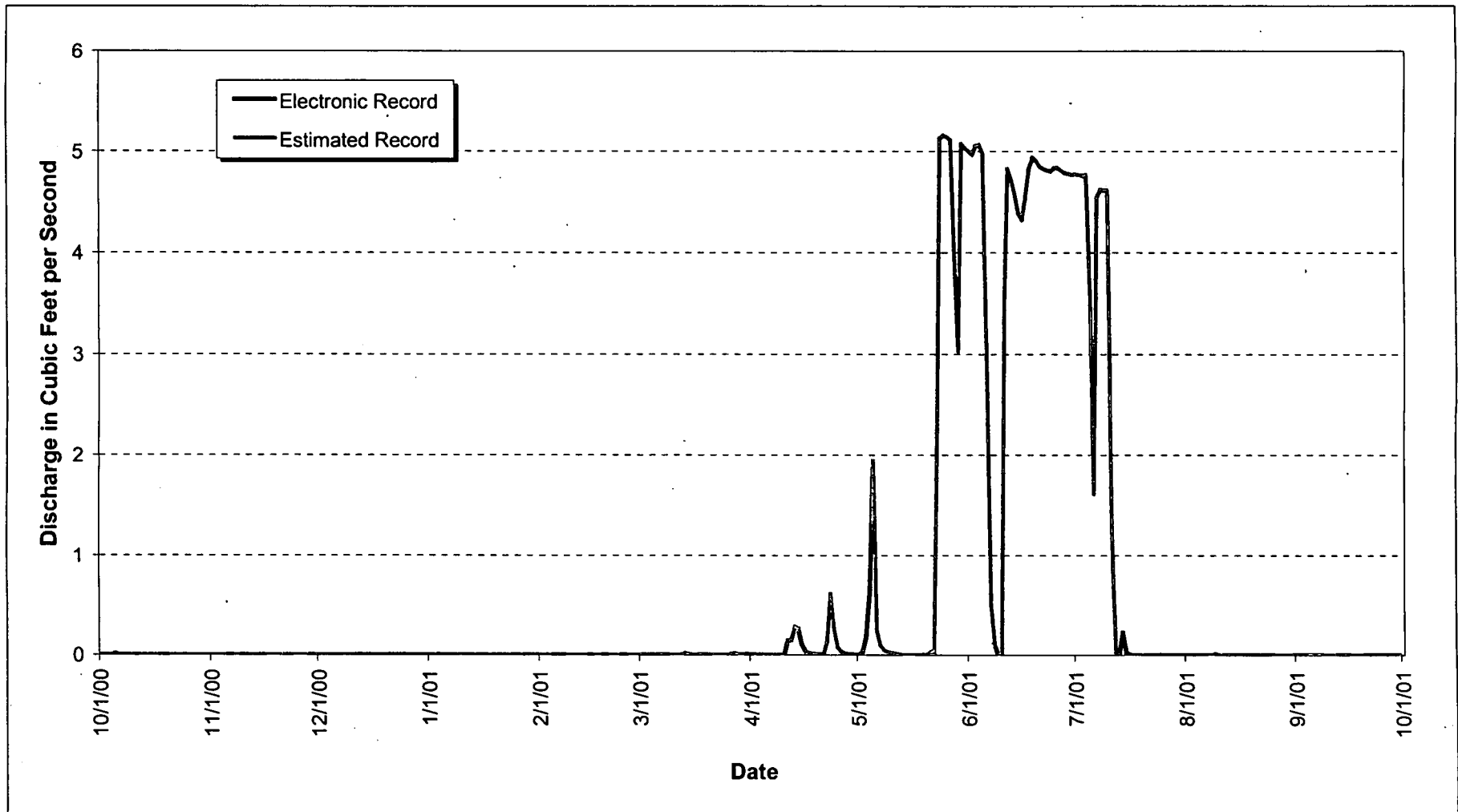


Figure 3-84. WY01 Mean Daily Hydrograph at GS46: Upper Church Ditch at West Gravel Pits.

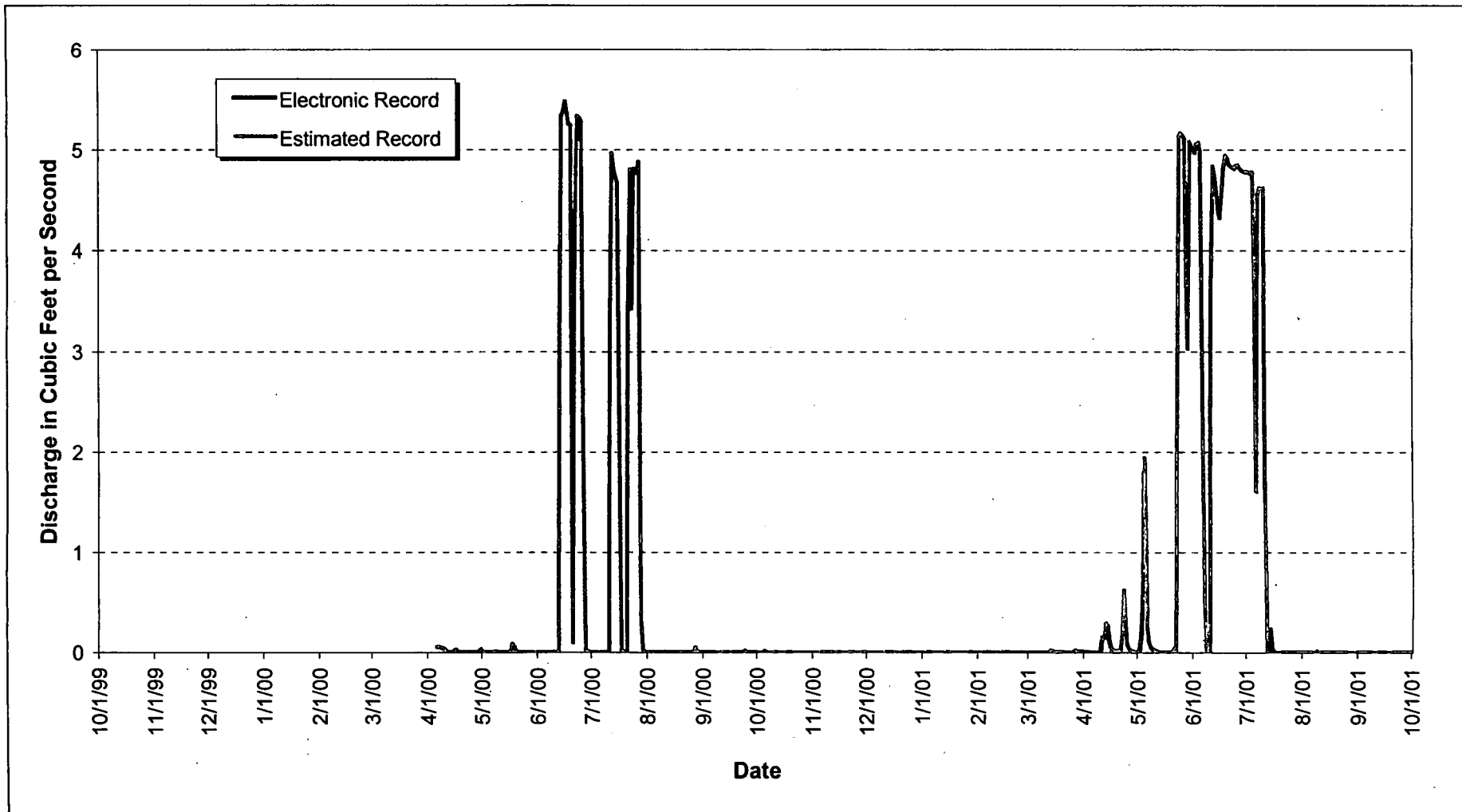


Figure 3-85. WY00-01 Mean Daily Hydrograph at GS46: Upper Church Ditch at West Gravel Pits.

3.2.30 GS49: Ditch Northwest of B566

Location

Ditch Northwest of B566; State Plane: 2083292, 750652

Drainage Area

- * The basin includes areas on west side of B776 (total of 3.3 acres)
- * IA Areas draining to GS49: 500, 700

Period of Record

12/29/00 to current year

Gage

Water-stage recorder and 6" Parshall flume

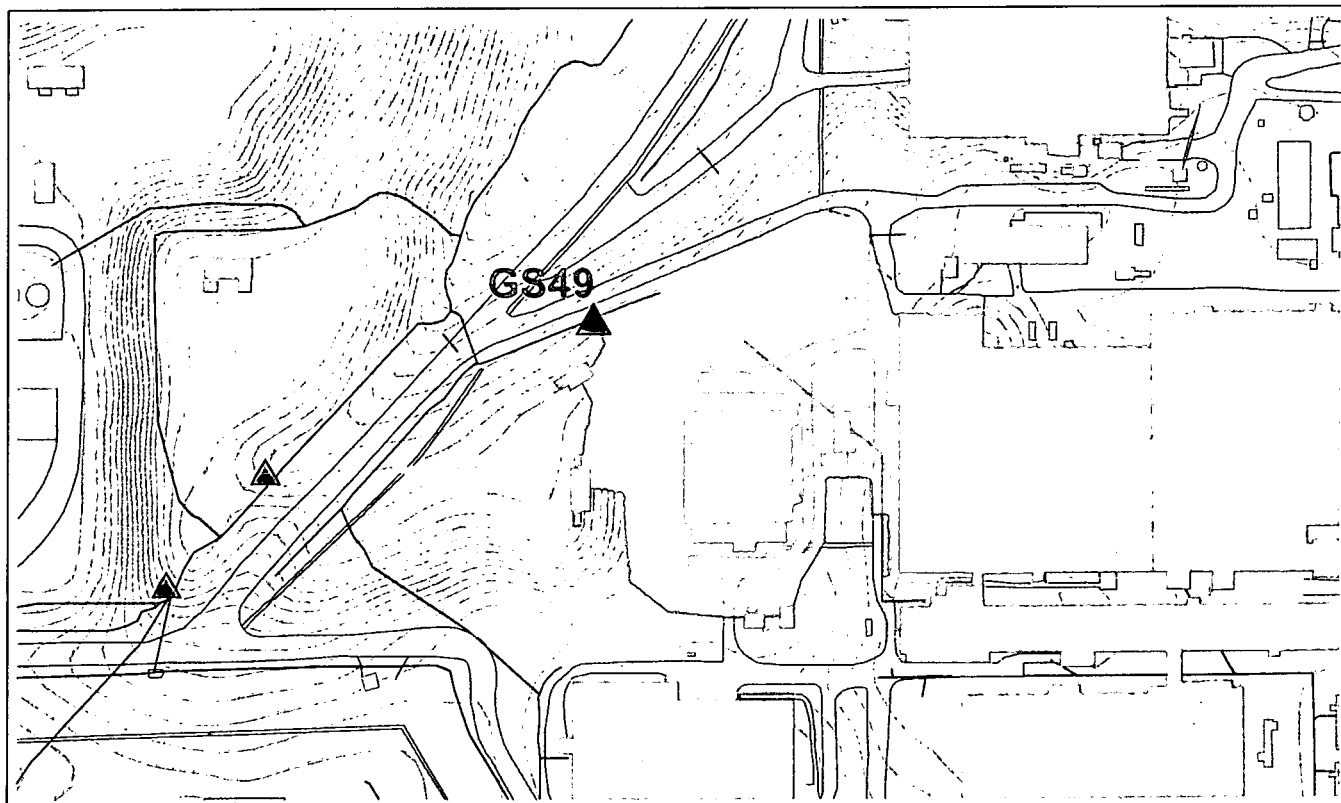


Figure 3-86. Map Showing GS49 Drainage Area.

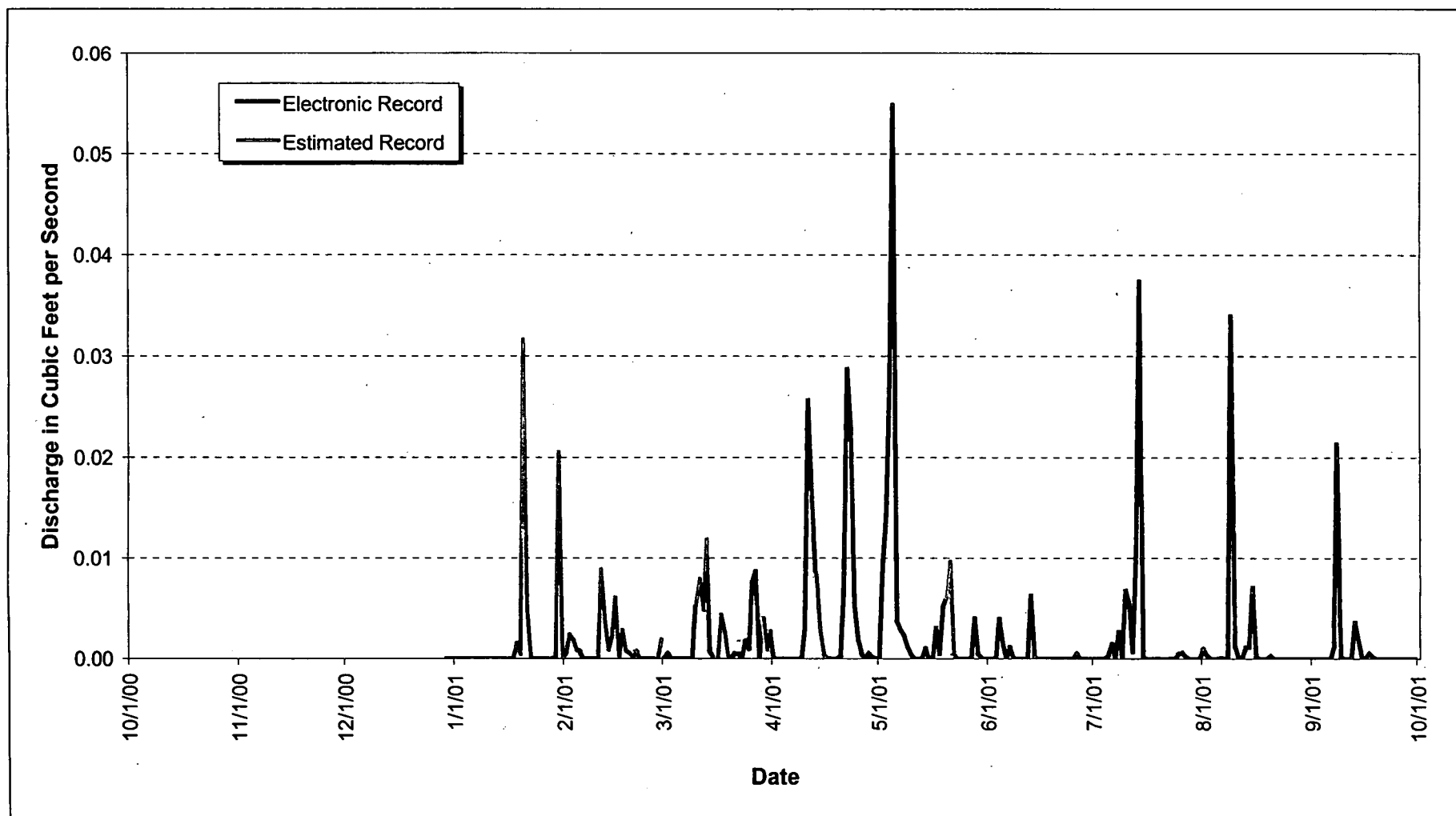


Figure 3-87. WY01 Mean Daily Hydrograph at GS49: Ditch Northwest of B566.

3.2.31 GS50: Ditch Northeast of B990

Location

Ditch northeast of B990; State Plane: 2085760, 750441

Drainage Area

- * The basin includes areas surrounding the Solar Ponds (total of 4.1 acres)
- * IA Areas draining to GS50: 700, 900

Period of Record

3/28/01 to current year

Gage

Water-stage recorder and 6" Parshall flume

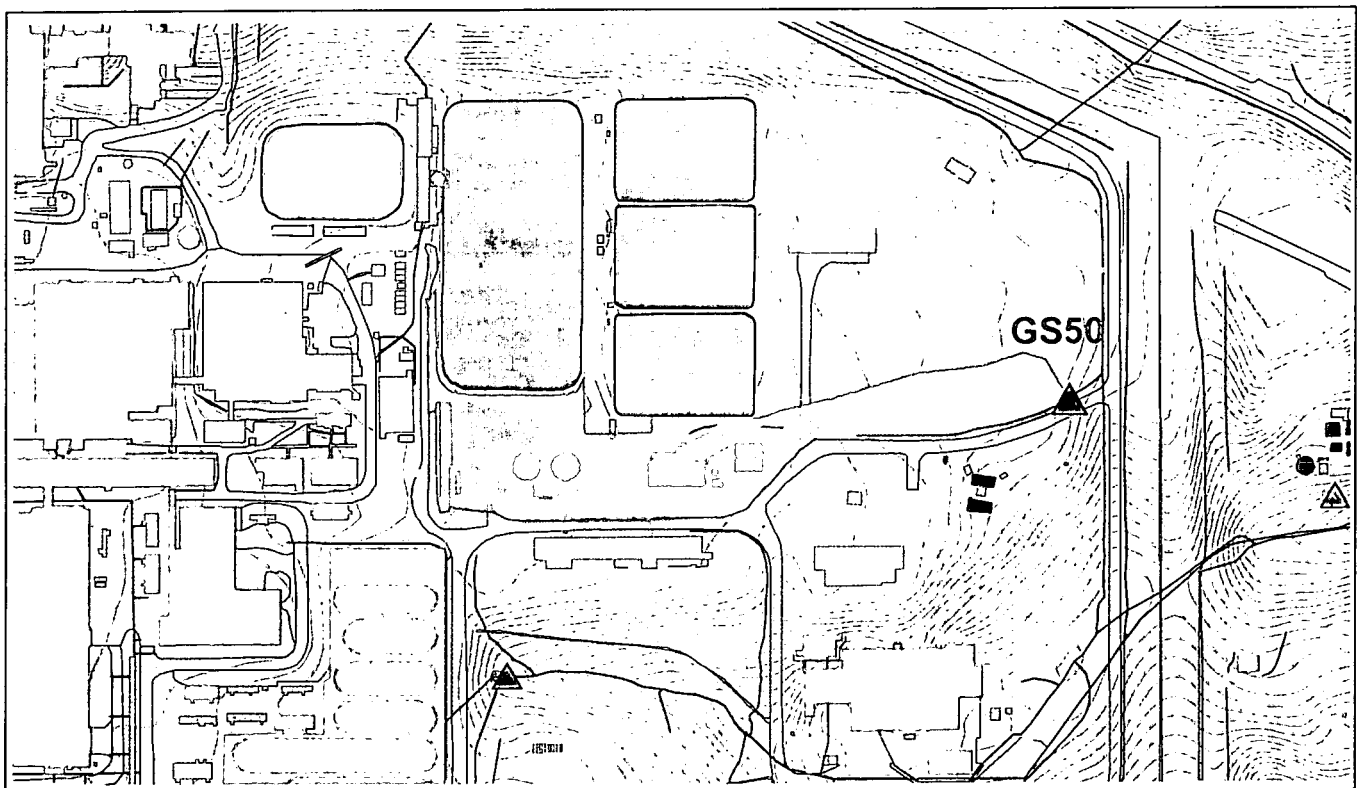


Figure 3-88. Map Showing GS50 Drainage Area.

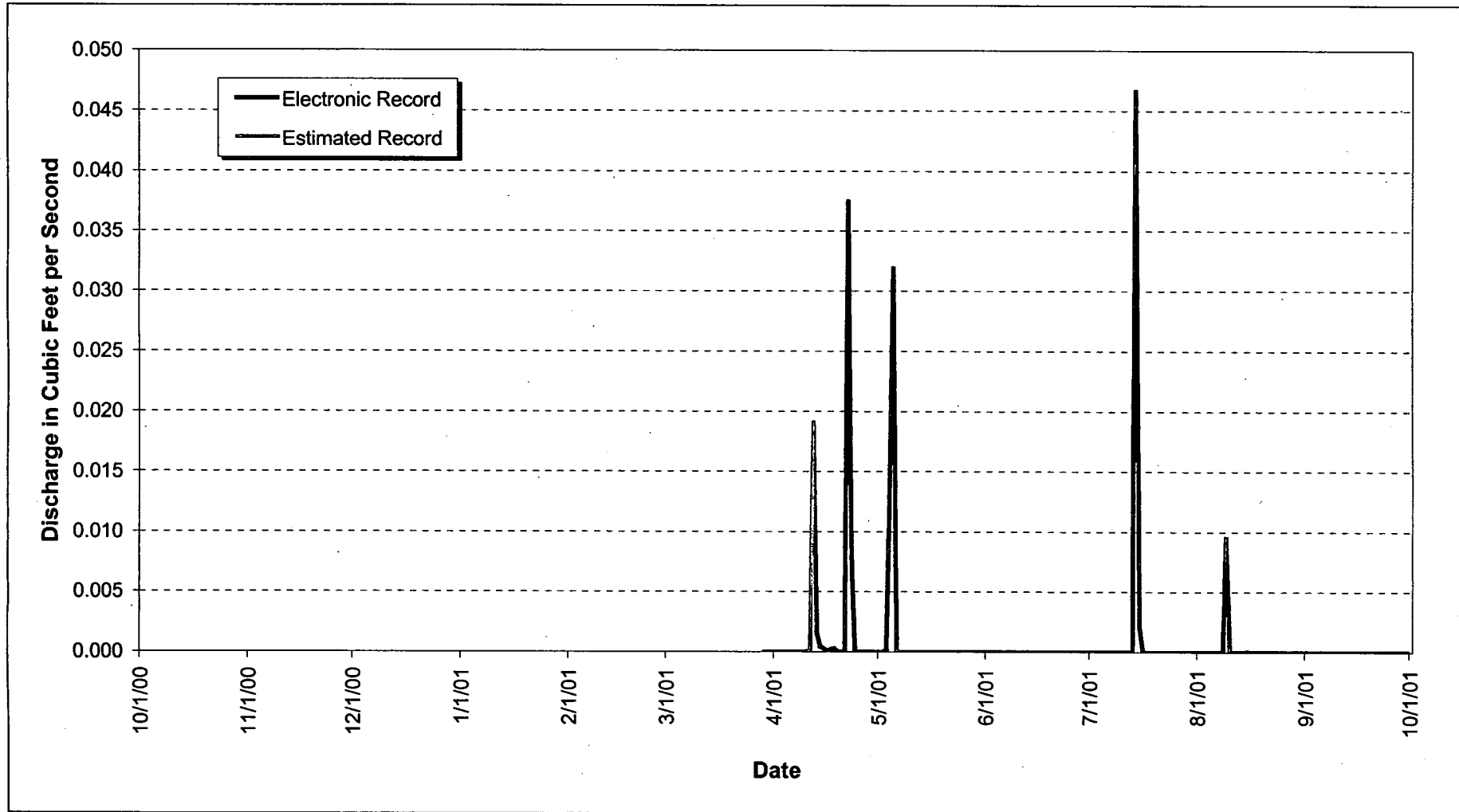


Figure 3-89. WY01 Mean Daily Hydrograph at GS50: Ditch Northeast of B990.

3.2.32 GS51: Ditch South of 903 Pad

Location

Ditch south of 903 Pad; State Plane: 2086295, 748107

Drainage Area

- * The basin includes an area south and east of the 903 Pad (total of 3.9 acres)
- * IA Areas draining to GS51: 900

Period of Record

8/13/01 to current year

Gage

Water-stage recorder and 0.75' H-flume

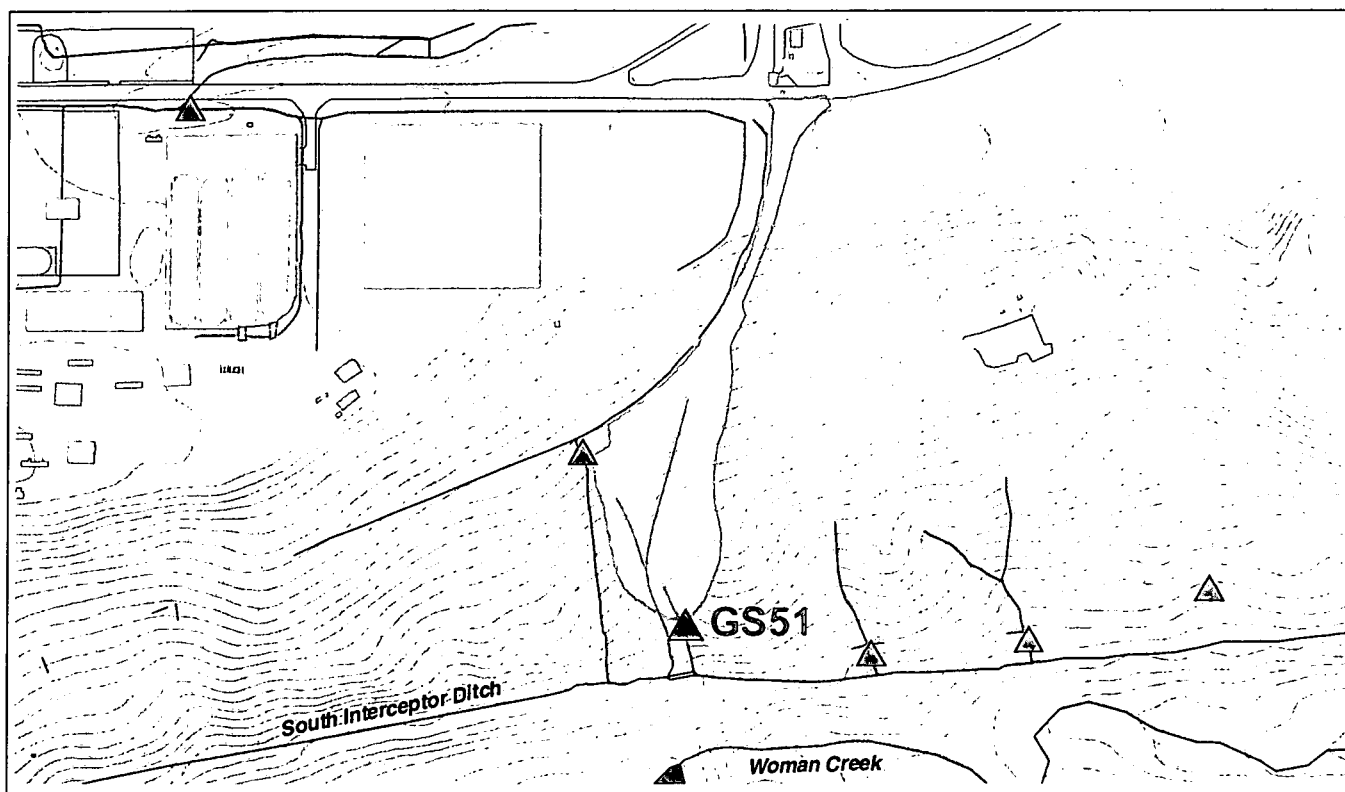


Figure 3-90. Map Showing GS51 Drainage Area.

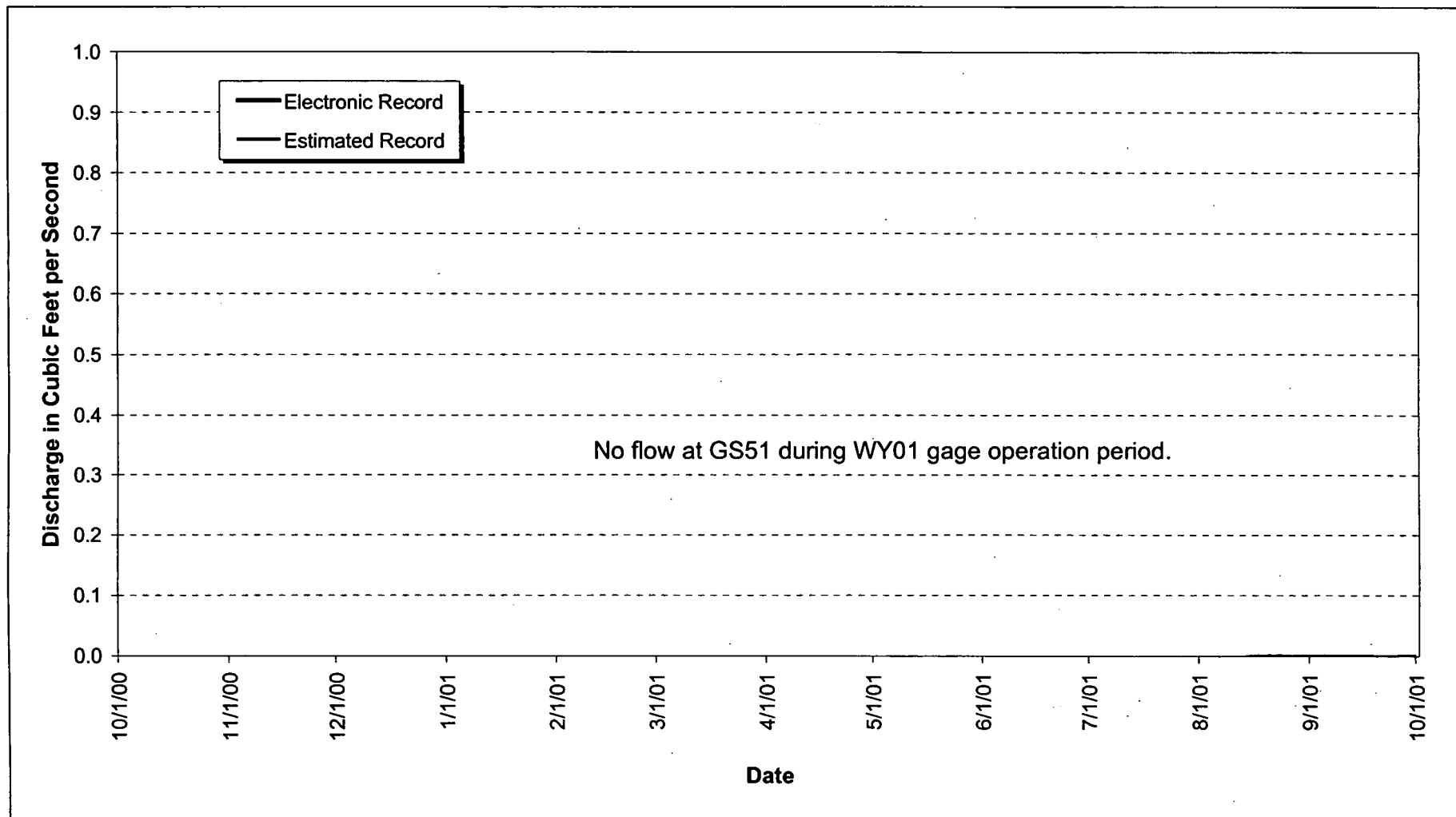


Figure 3-91. WY01 Mean Daily Hydrograph at GS51: Ditch South of 903 Pad.

3.2.33 GS52: Drainage Swale Southeast of 903 Pad

Location

Drainage Swale Southeast of 903 Pad; State Plane: 2086715, 748043

Drainage Area

- * The basin includes a swale south and east of the 903 Pad (total of 4.3 acres)
- * IA Areas draining to GS52: 900

Period of Record

7/26/01 to current year

Gage

Water-stage recorder and 0.6' HS-flume

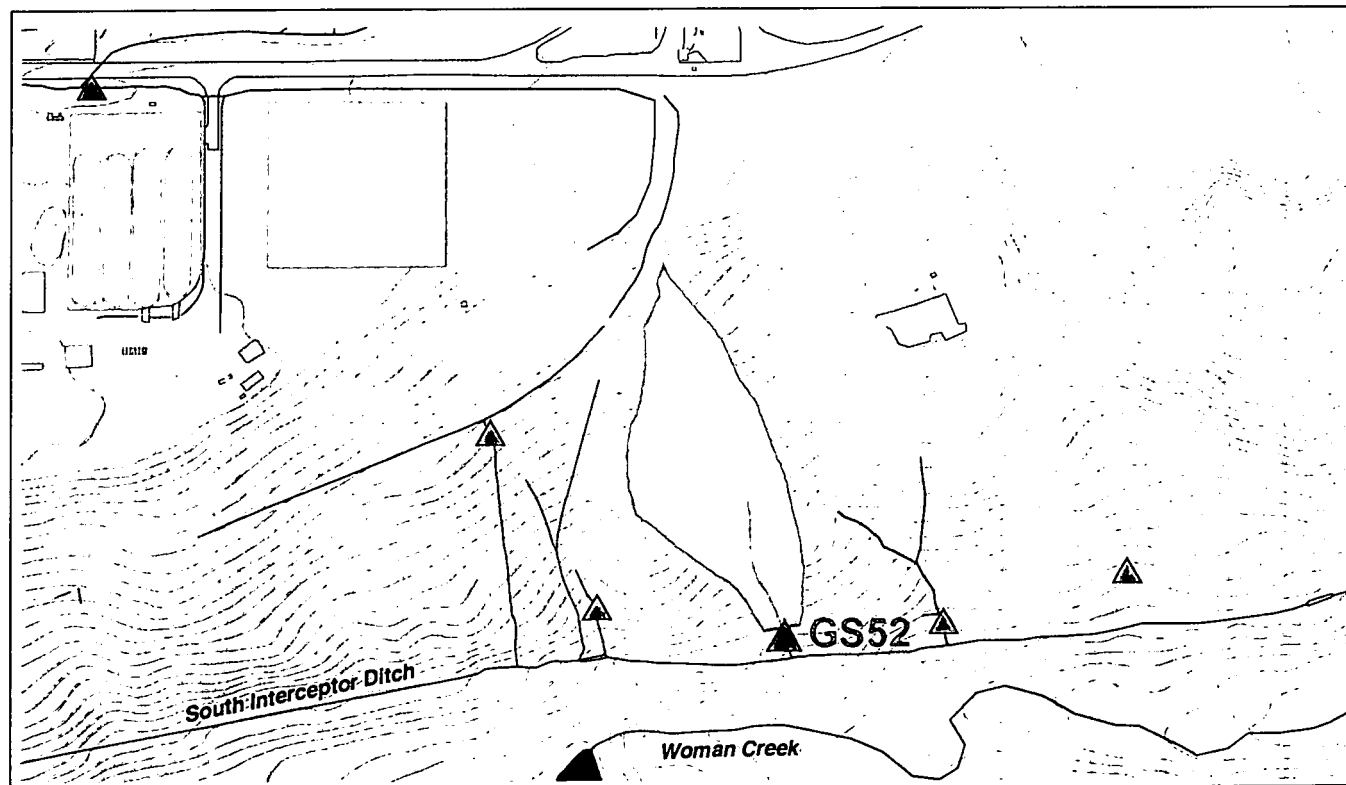


Figure 3-92. Map Showing GS52 Drainage Area.

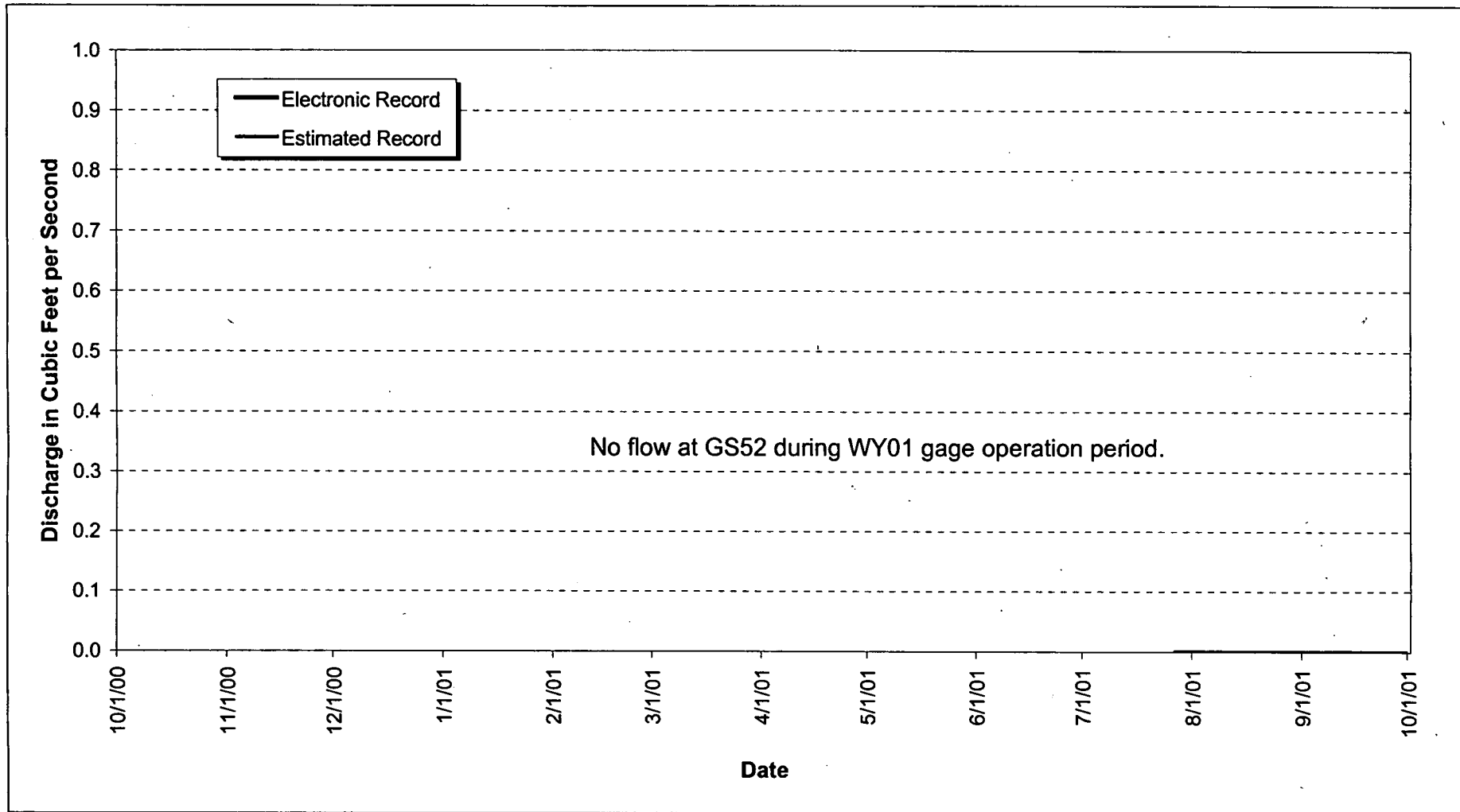


Figure 3-93. WY01 Mean Daily Hydrograph at GS52: Drainage Swale Southeast of 903 Pad.

3.2.34 GS53: Drainage Swale Southeast of 903 Pad

Location

Drainage Swale Southeast of 903 Pad; State Plane: 2087071, 748074

Drainage Area

- * The basin includes a swale south and east of the 903 Pad (total of 10.1 acres)
- * IA Areas draining to GS53: 900

Period of Record

8/1/01 to current year

Gage

Water-stage recorder and 0.6' HS-flume

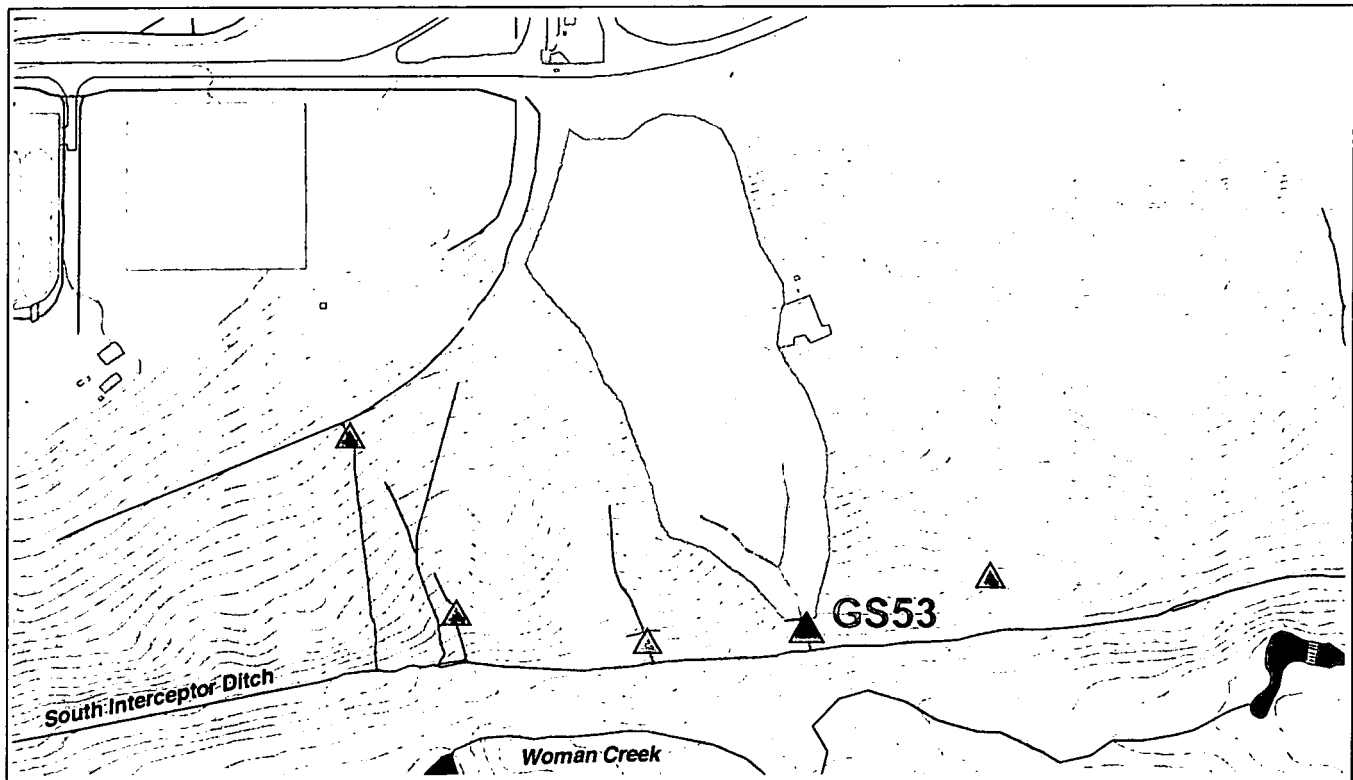


Figure 3-94. Map Showing GS53 Drainage Area.

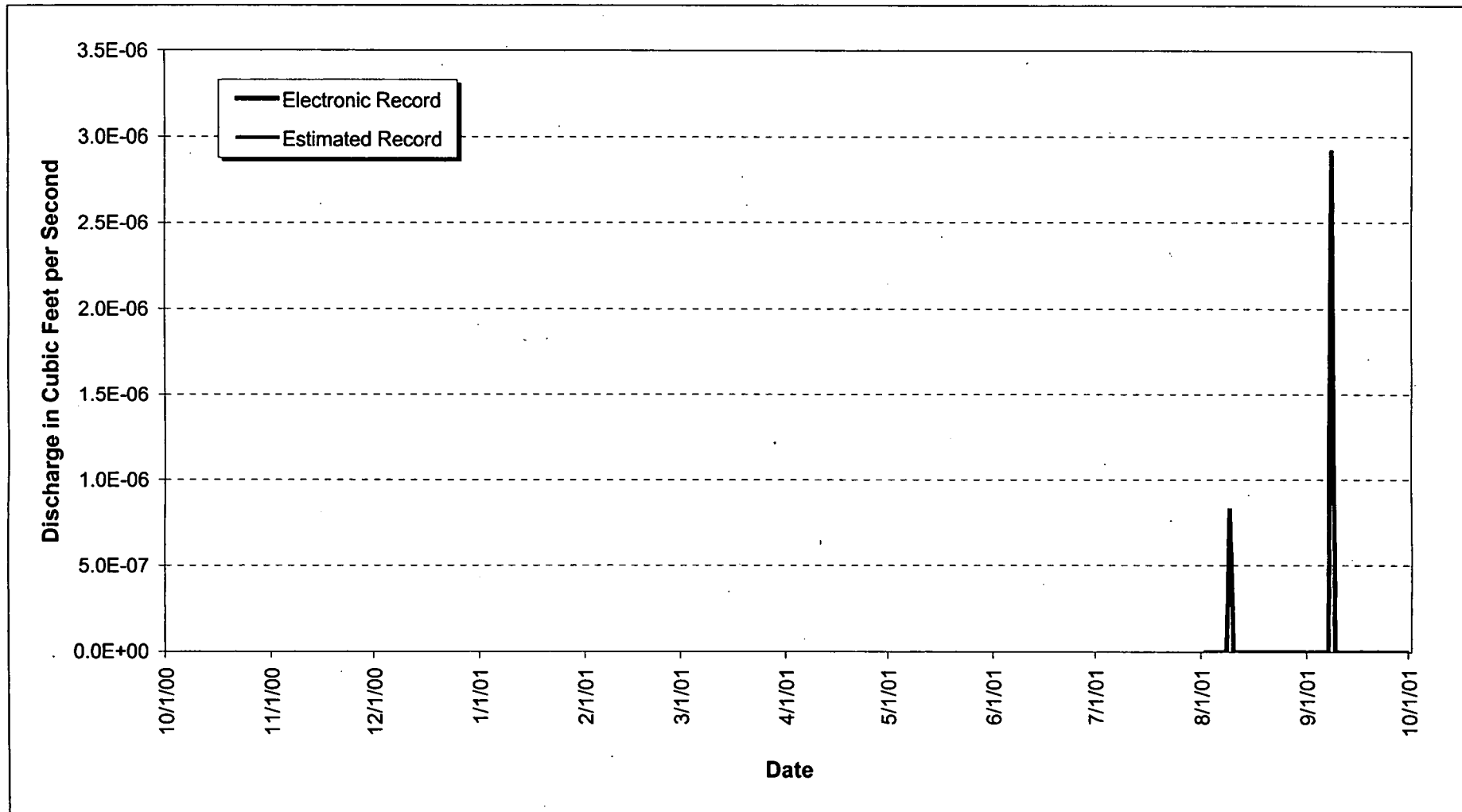


Figure 3-95. WY01 Mean Daily Hydrograph at GS53: Drainage Swale Southeast of 903 Pad.

3.2.35 GS54: Drainage Swale East-Southeast of 903 Pad

Location

Drainage Swale East-Southeast of 903 Pad; State Plane: 2087476, 748188

Drainage Area

- * The basin includes a swale south and east of the 903 Pad (total of 9.5 acres)
- * IA Areas draining to GS54: 900

Period of Record

8/22/01 to current year

Gage

Water-stage recorder and 0.6' HS-flume

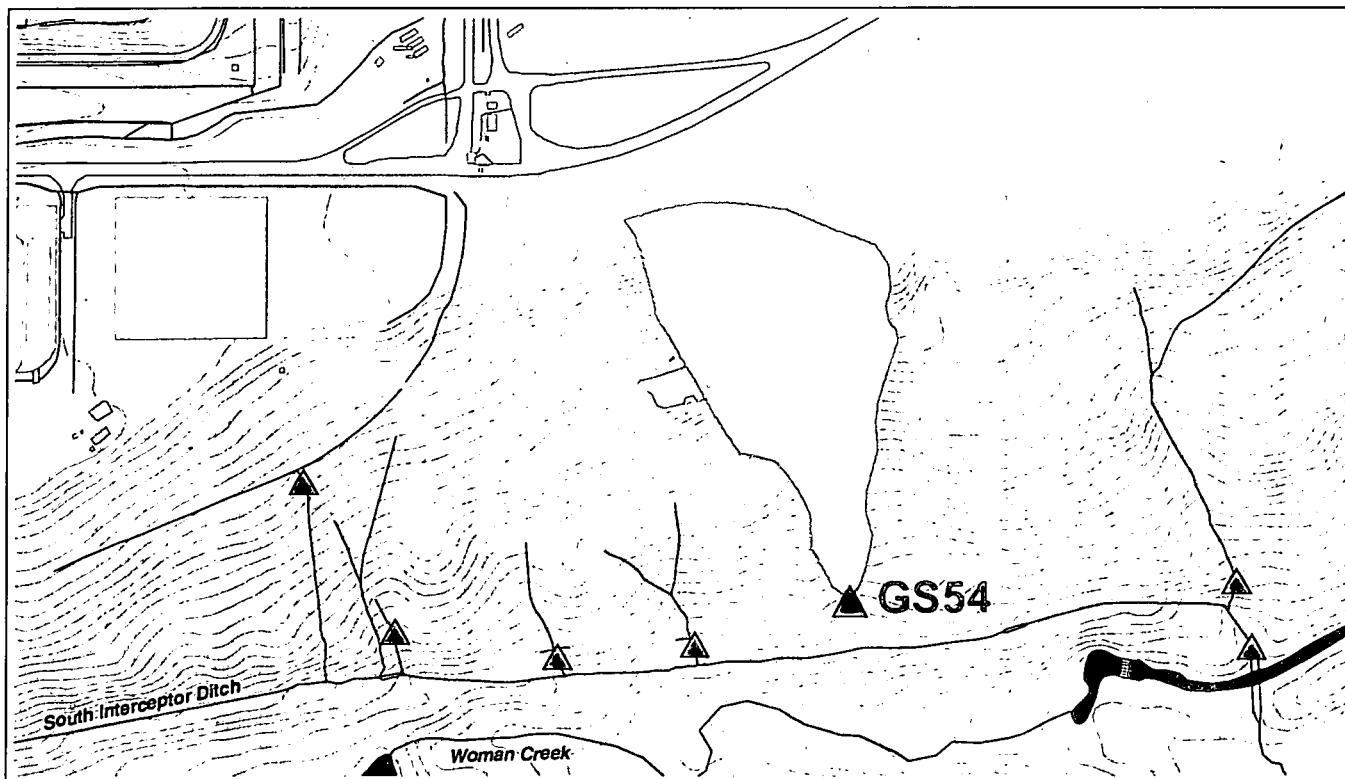


Figure 3-96. Map Showing GS54 Drainage Area.

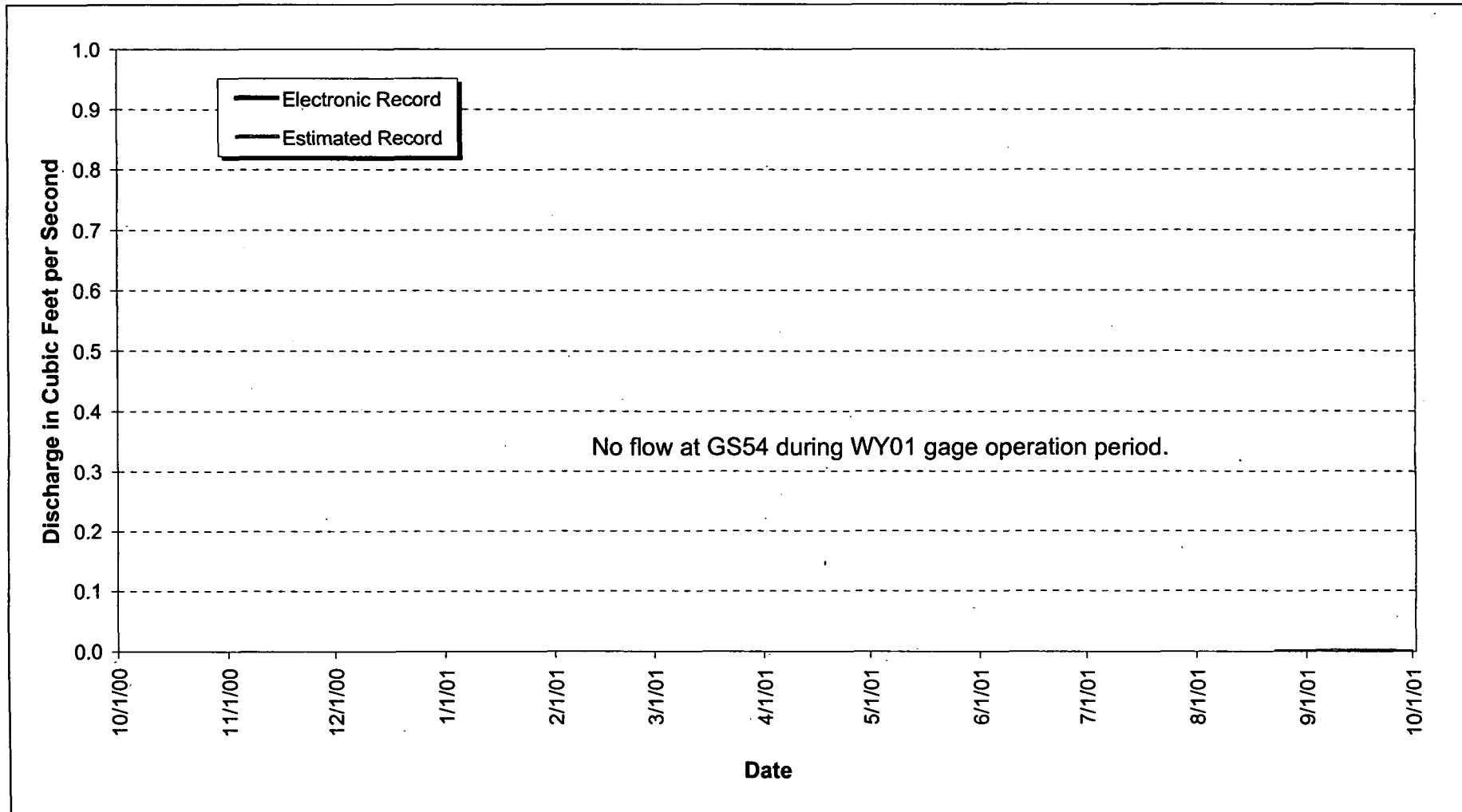


Figure 3-97. WY01 Mean Daily Hydrograph at GS54: Drainage Swale East-Southeast of 903 Pad.

3.2.36 SW009: McKay Bypass Upstream of West Diversion

Location

McKay Bypass upstream of West Diversion; State Plane: 2079449, 750287

Drainage Area

- * The basin includes areas tributary to Upper Church and McKay ditches (total drainage acreage unknown)
- * IA Areas draining to SW009: none

Period of Record

4/19/00 to current year

Gage

Water-stage recorder and 1' Parshall flume

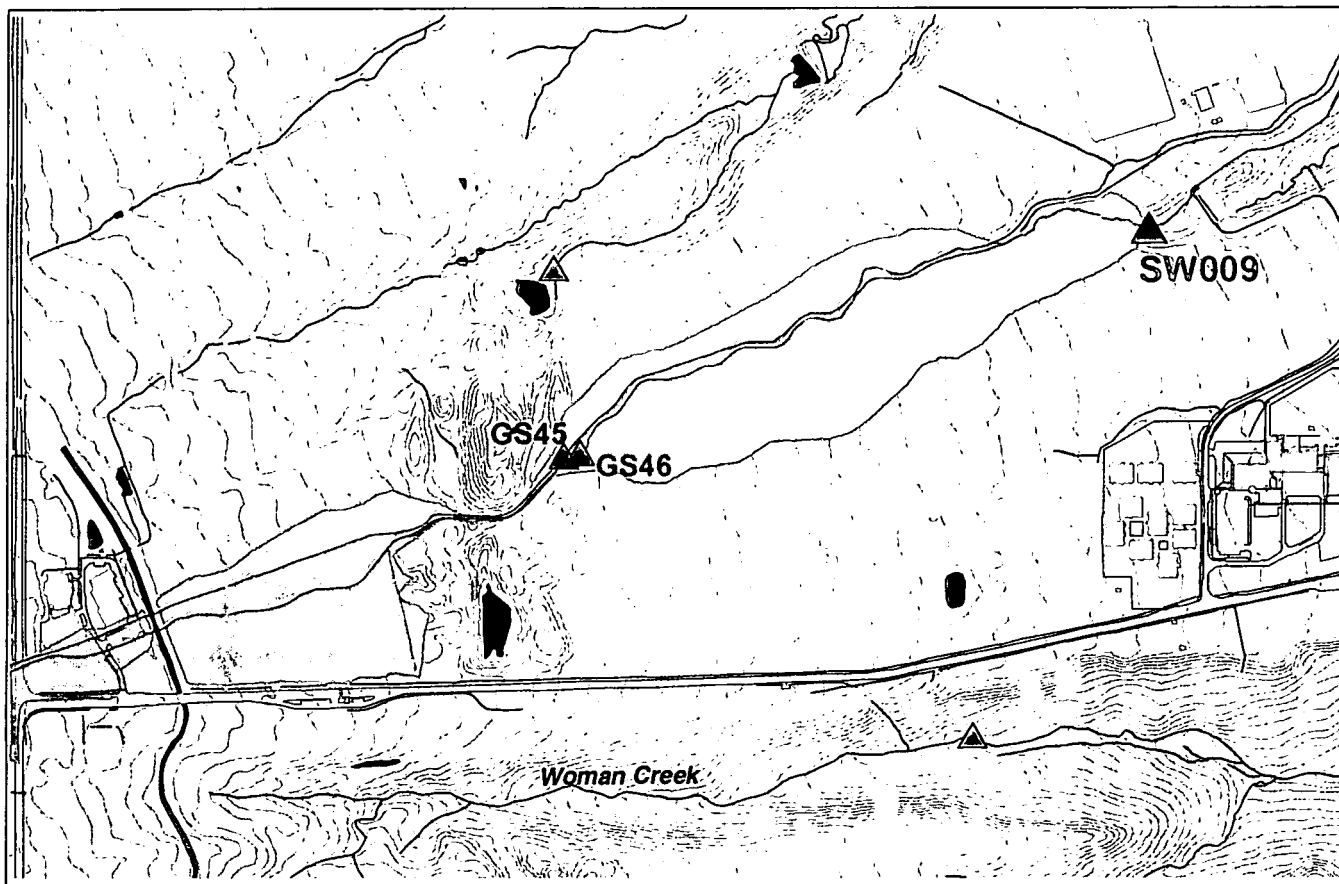


Figure 3-98. Map Showing SW009 Drainage Area.

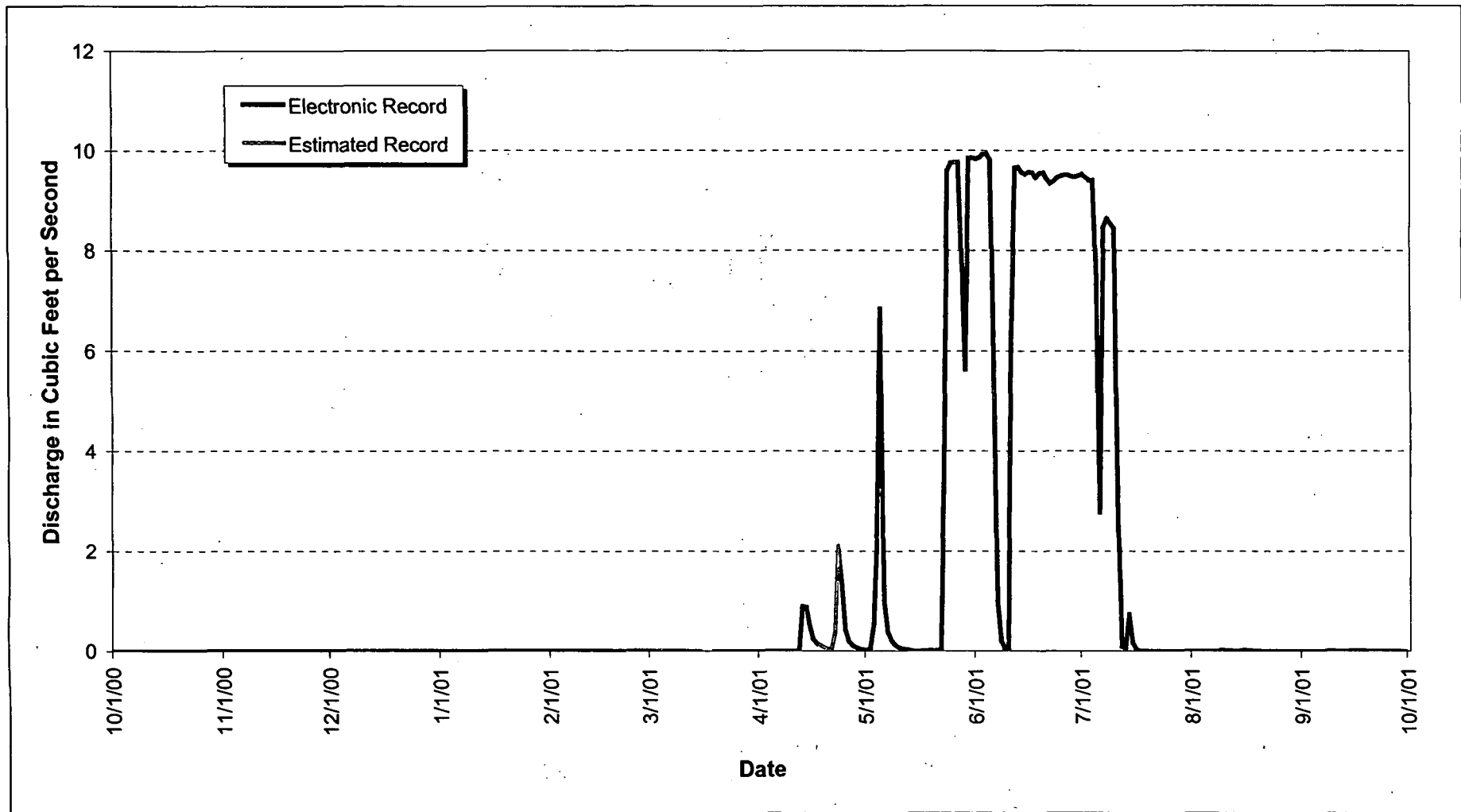


Figure 3-99. WY01 Mean Daily Hydrograph at SW009: McKay Bypass Canal Upstream of West Diversion.

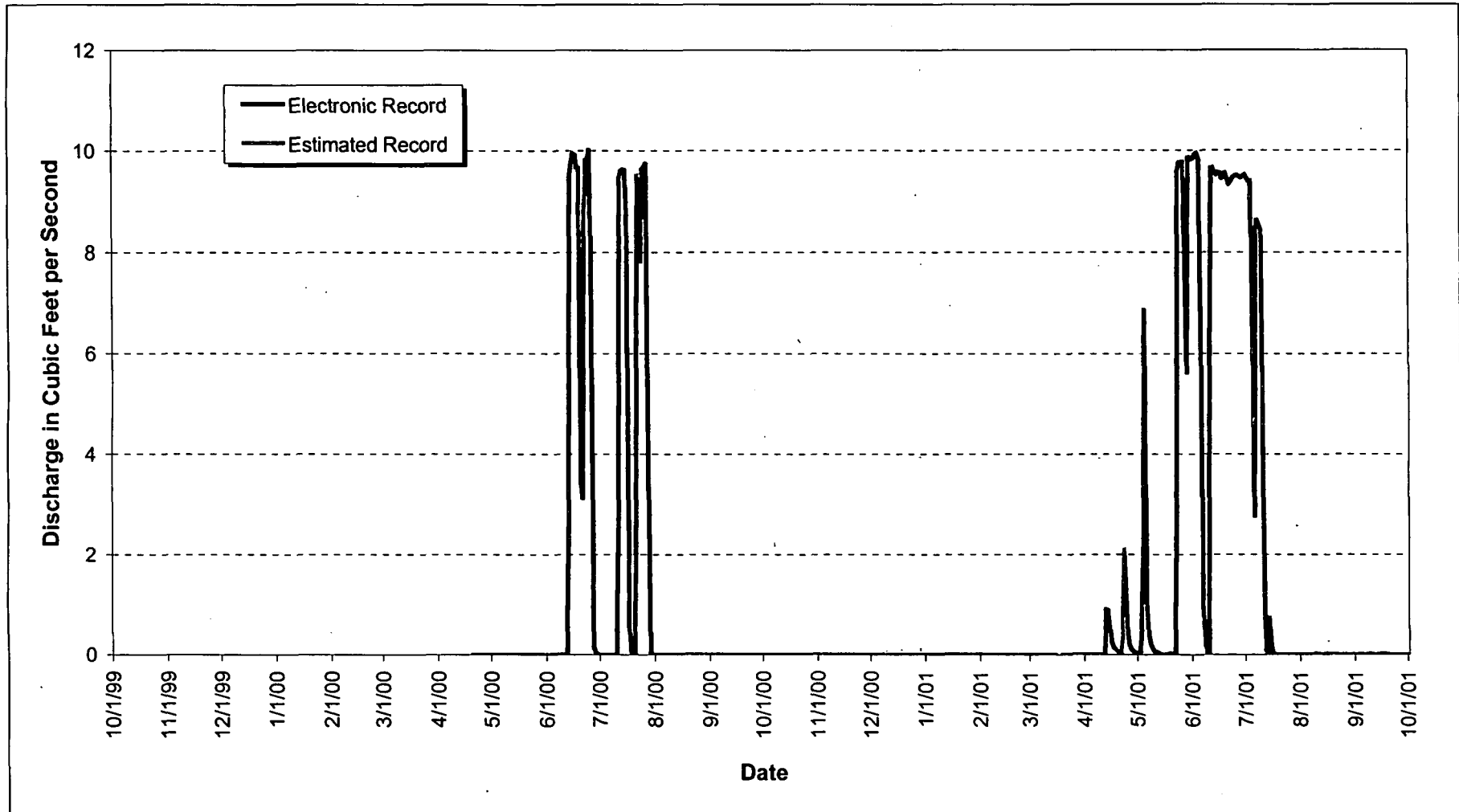


Figure 3-100. WY00-01 Mean Daily Hydrograph at SW009: McKay Bypass Canal Upstream of West Diversion.

3.2.37 SW022: East End of Central Avenue Ditch

Location

East end of Central Ave. Ditch; State Plane: 2086438, 749759

Drainage Area

- * The basin includes the IA south of Central Ave. Ditch (total of 76.7 acres)
- * IA Areas draining to SW022: 900, 800, 600, 400, and 100

Period of Record

9/11/91 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

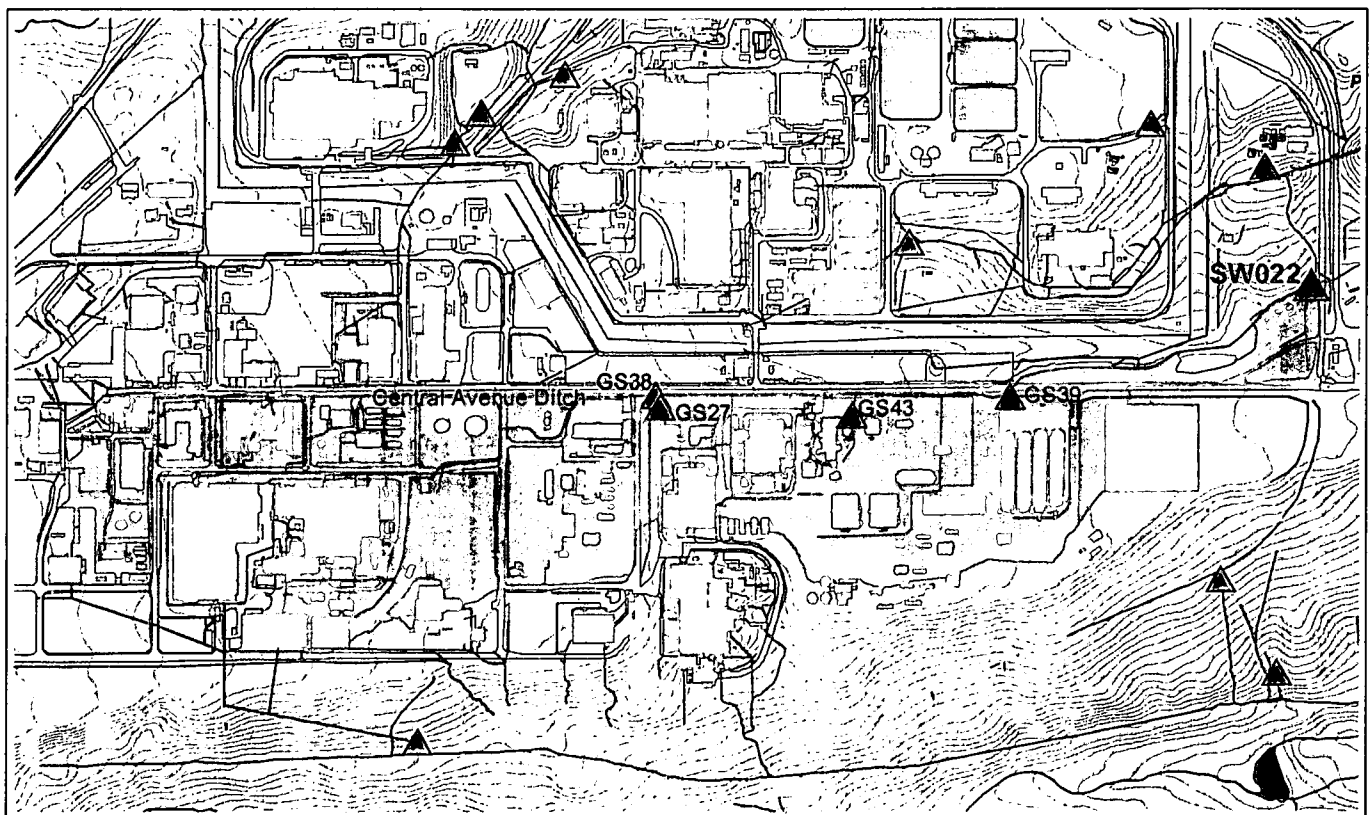


Figure 3-101. Map Showing SW022 Drainage Area.

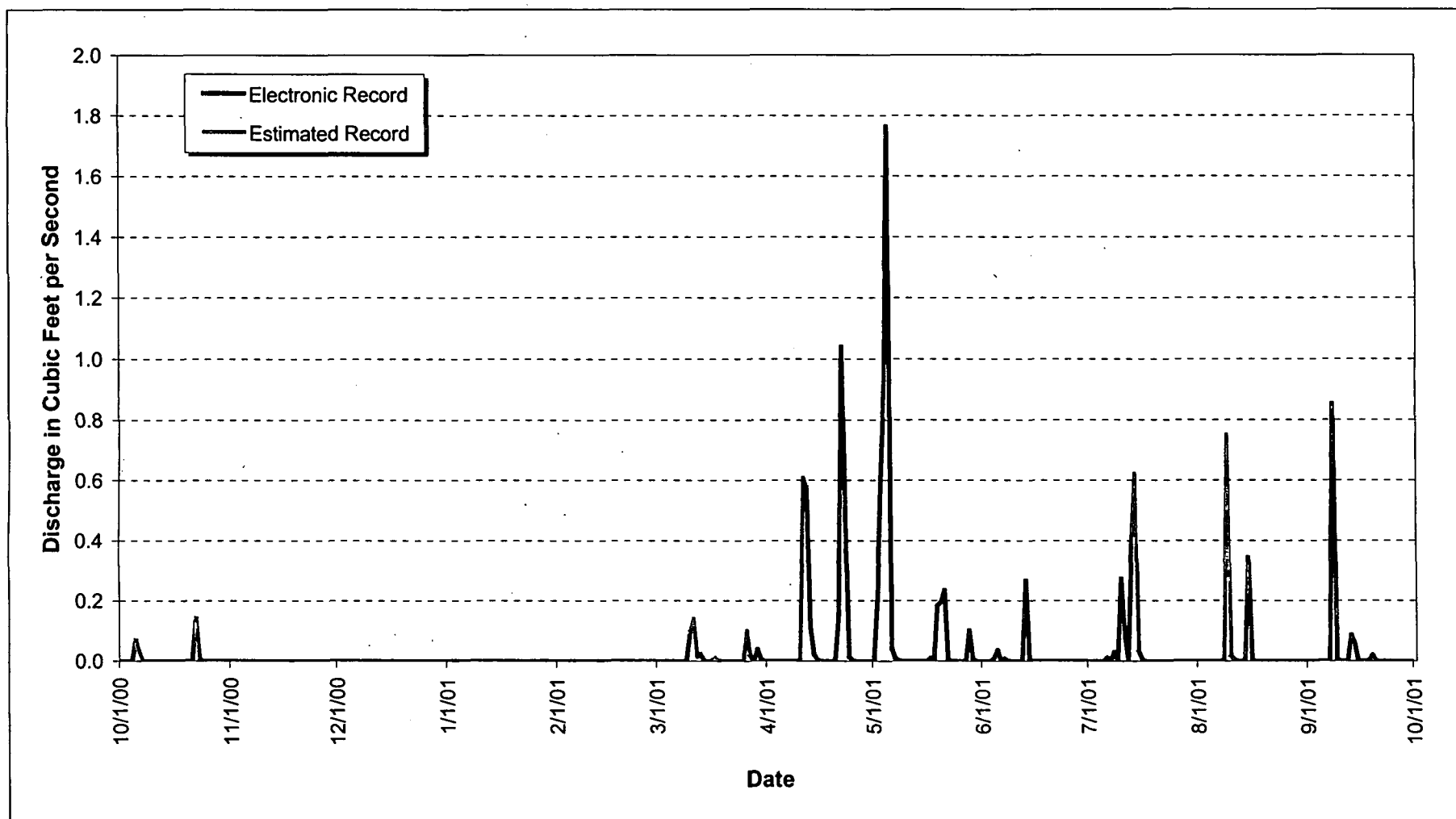


Figure 3-102. WY01 Mean Daily Hydrograph at SW022: East End of Central Avenue Ditch.

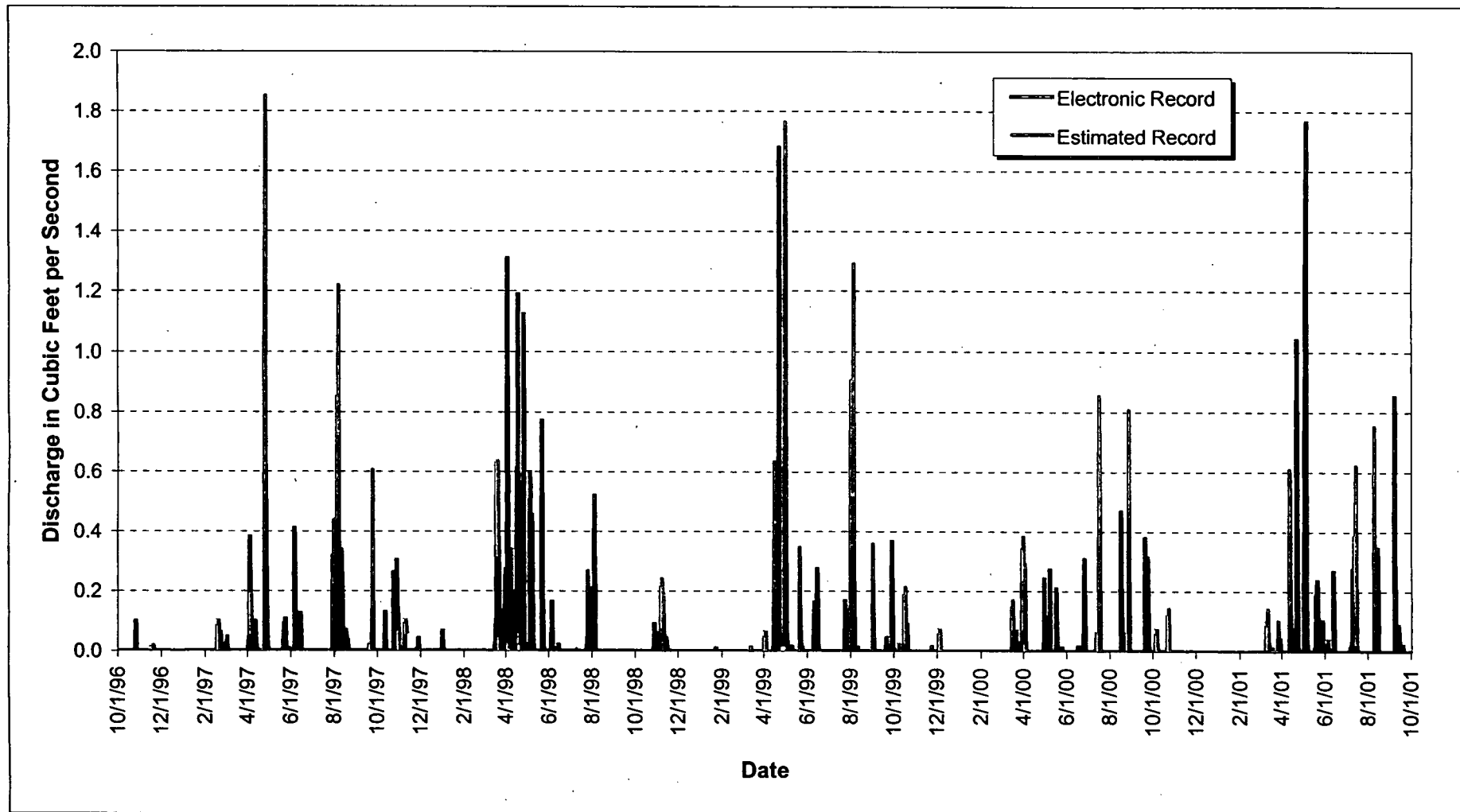


Figure 3-103. WY97-01 Mean Daily Hydrograph at SW022: East End of Central Avenue Ditch.

3.2.38 SW027: South Interceptor Ditch at Pond C-2

Location

East end of South Interceptor Ditch at Pond C-2; State Plane: 2088515, 748067

Drainage Area

* The basin includes the a portion of the southern IA and the area east of the inner fence and south of the East Access Rd. (total of 215.3 acres)

* IA Areas draining to SW027: 900, 800, 600, and 400

Period of Record

9/11/91 to current year

Gage

Water-stage recorder and dual, parallel 120° v-notch weirs

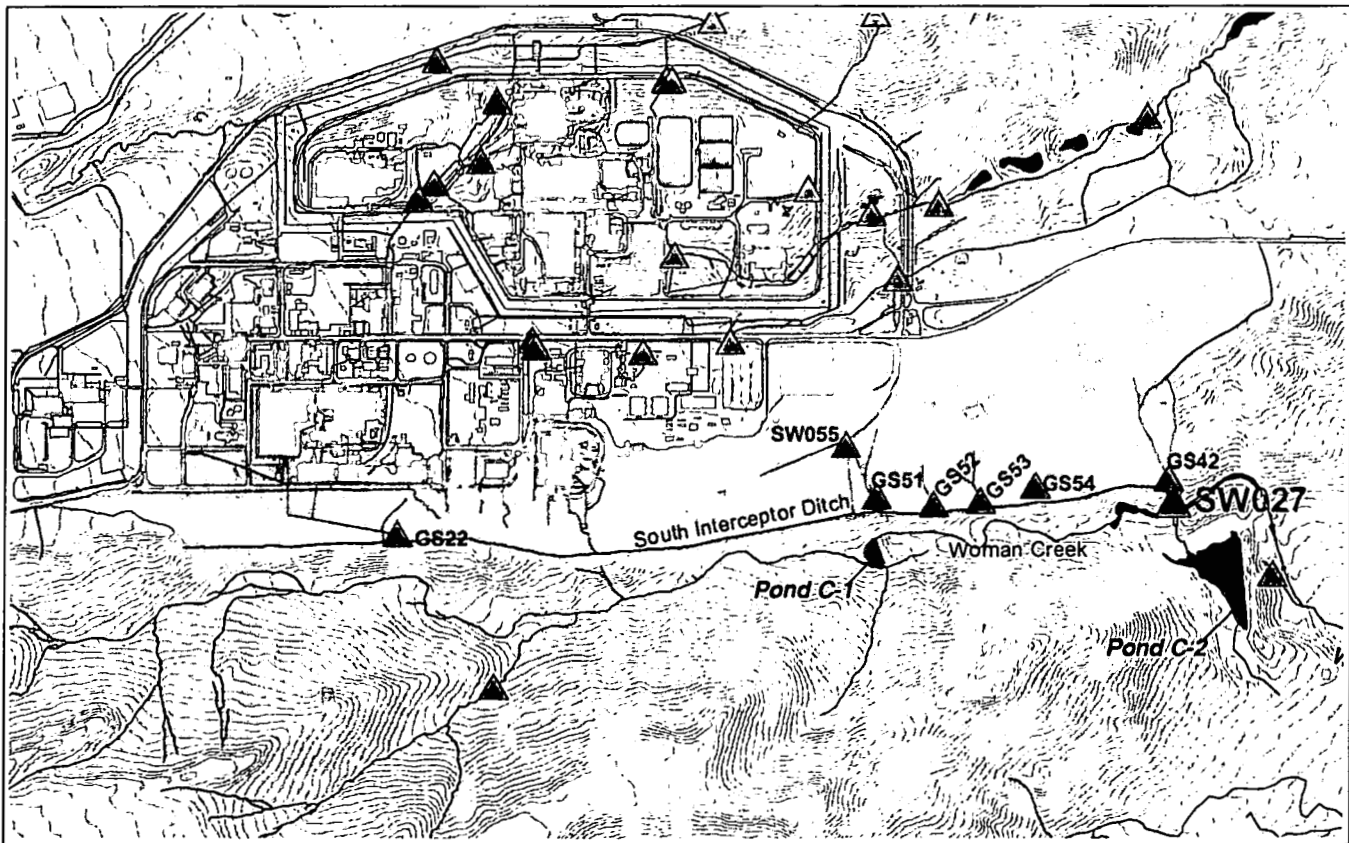


Figure 3-104. Map Showing SW027 Drainage Area.

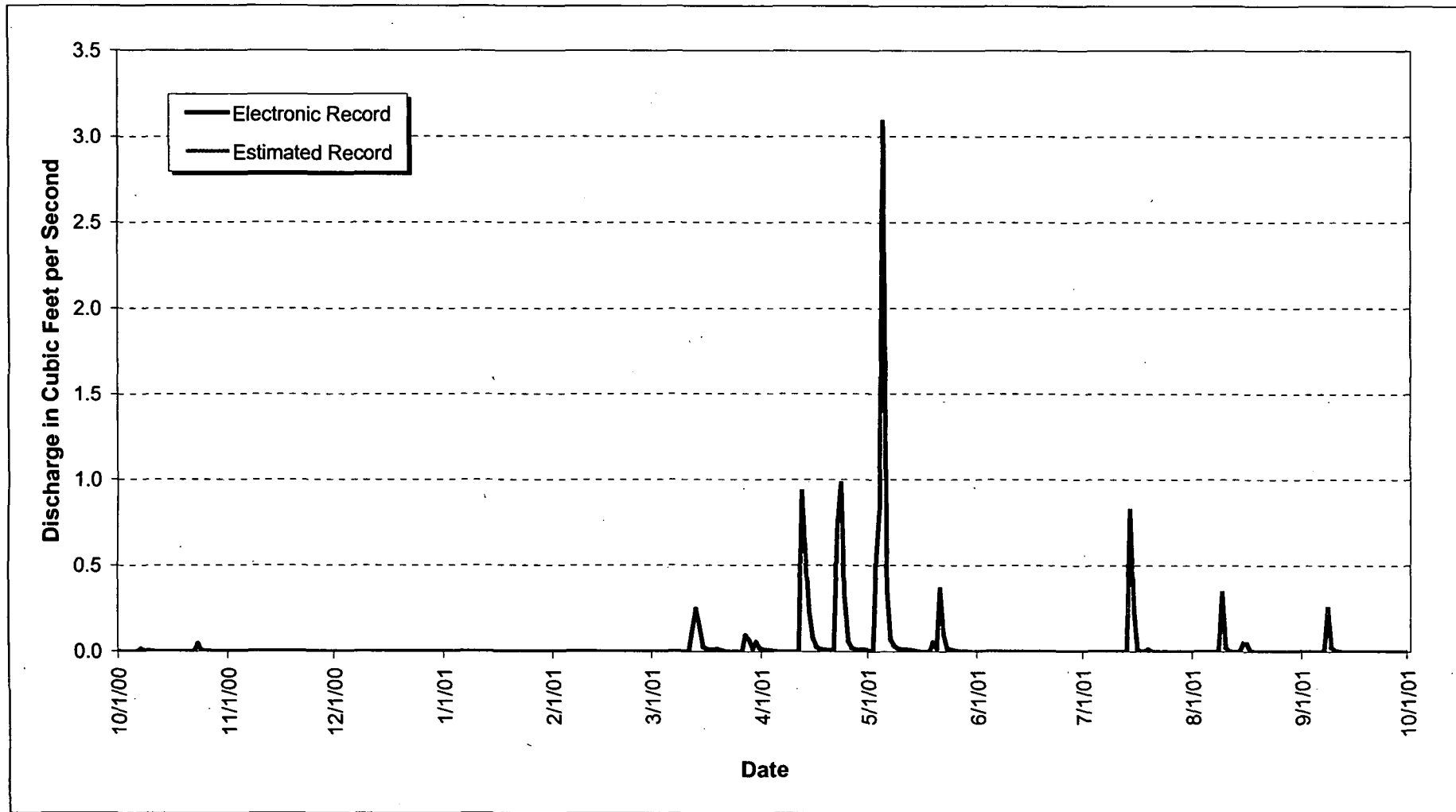


Figure 3-105. WY01 Mean Daily Hydrograph at SW027: South Interceptor Ditch at Pond C-2.

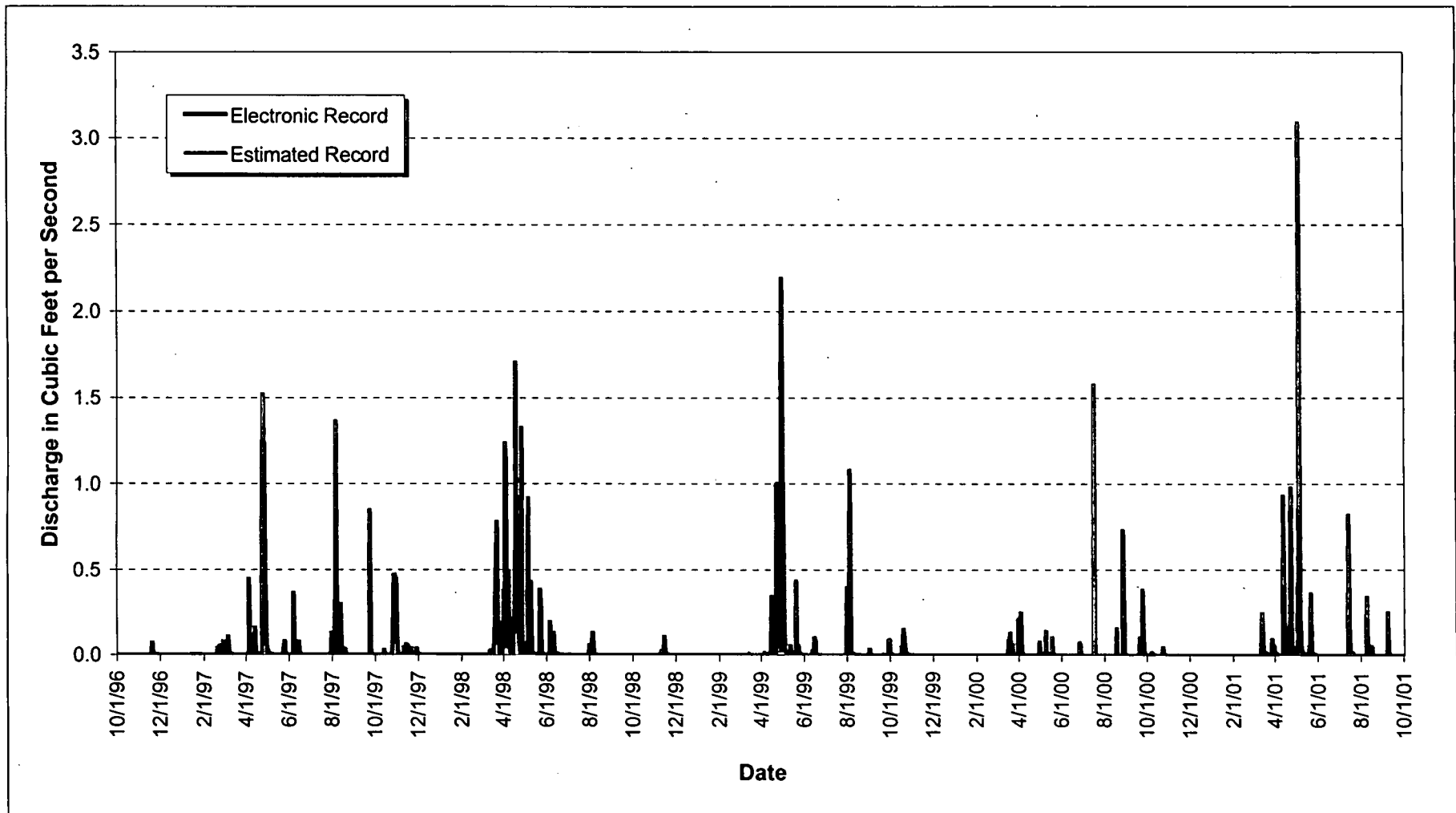


Figure 3-106. WY97-01 Mean Daily Hydrograph at SW027: South Interceptor Ditch at Pond C-2.

3.2.39 SW055: Ditch South of 903 Pad at Inner Fence

Location

Ditch South of 903 Pad at Inner Fence; State Plane: 2086059, 748501

Drainage Area

- * The basin includes areas south and east of the 903 Pad (total of 17.3 acres)
- * IA Areas draining to SW055: 900

Period of Record

5/22/01 to current year

Gage

Water-stage recorder and 0.75' H-flume

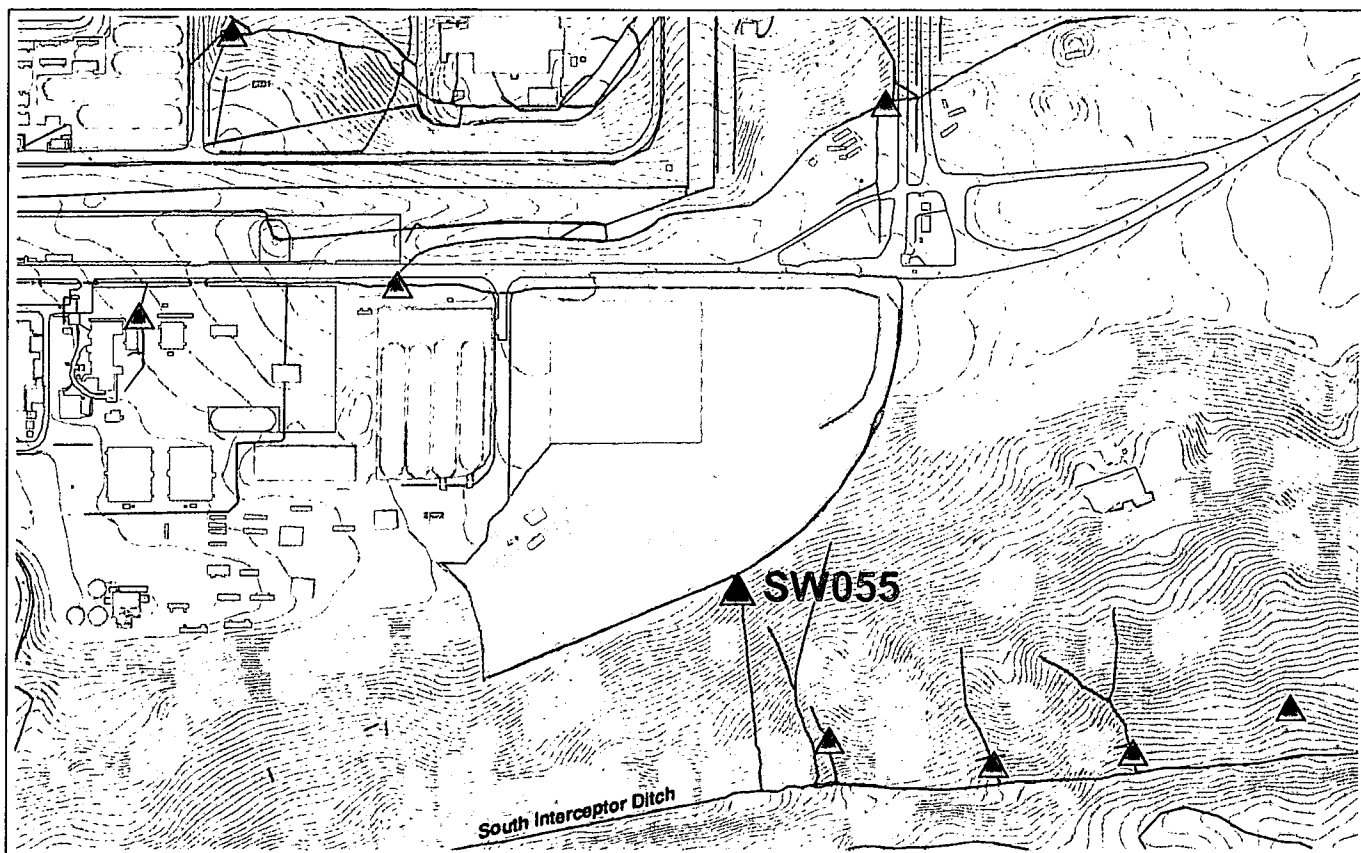


Figure 3-107. Map Showing SW055 Drainage Area.

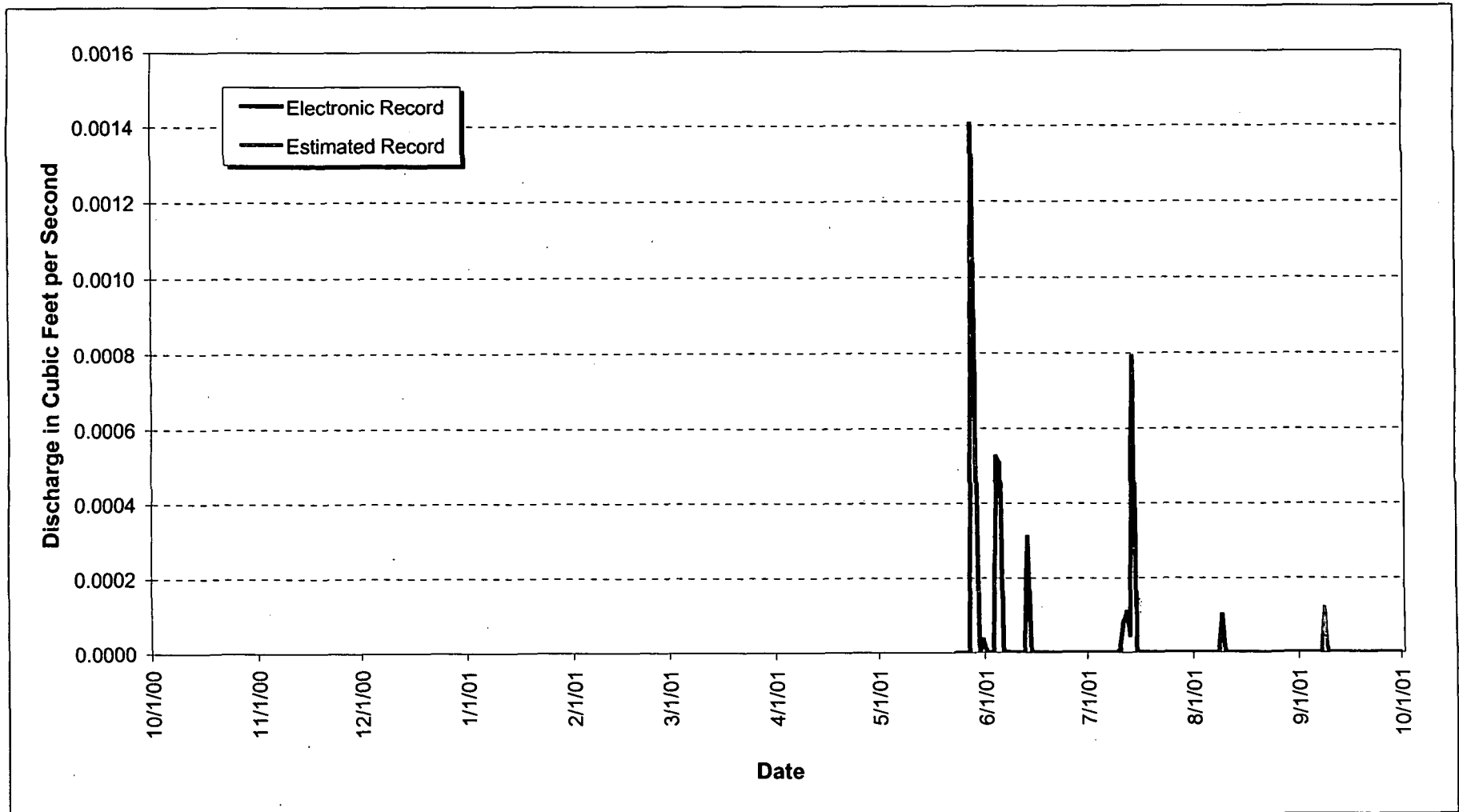


Figure 3-108. WY01 Mean Daily Hydrograph at SW055: Ditch South of 903 Pad at Inner Fence.

3.2.40 SW091: North Walnut Creek Tributary Northeast of Solar Ponds

Location

N. Walnut Creek tributary draining area NE of Solar Ponds; State Plane: 2086267, 751775

Drainage Area

- * The basin includes the area NE of the Solar Ponds (total of 10.2 acres)
- * IA Areas draining to SW091: 900

Period of Record

4/18/95 to current year

Gage

Water-stage recorder and 6" cutthroat flume; 1.5' H-flume located 400 feet upstream prior to 5/4/98 (see Figure 2-2).

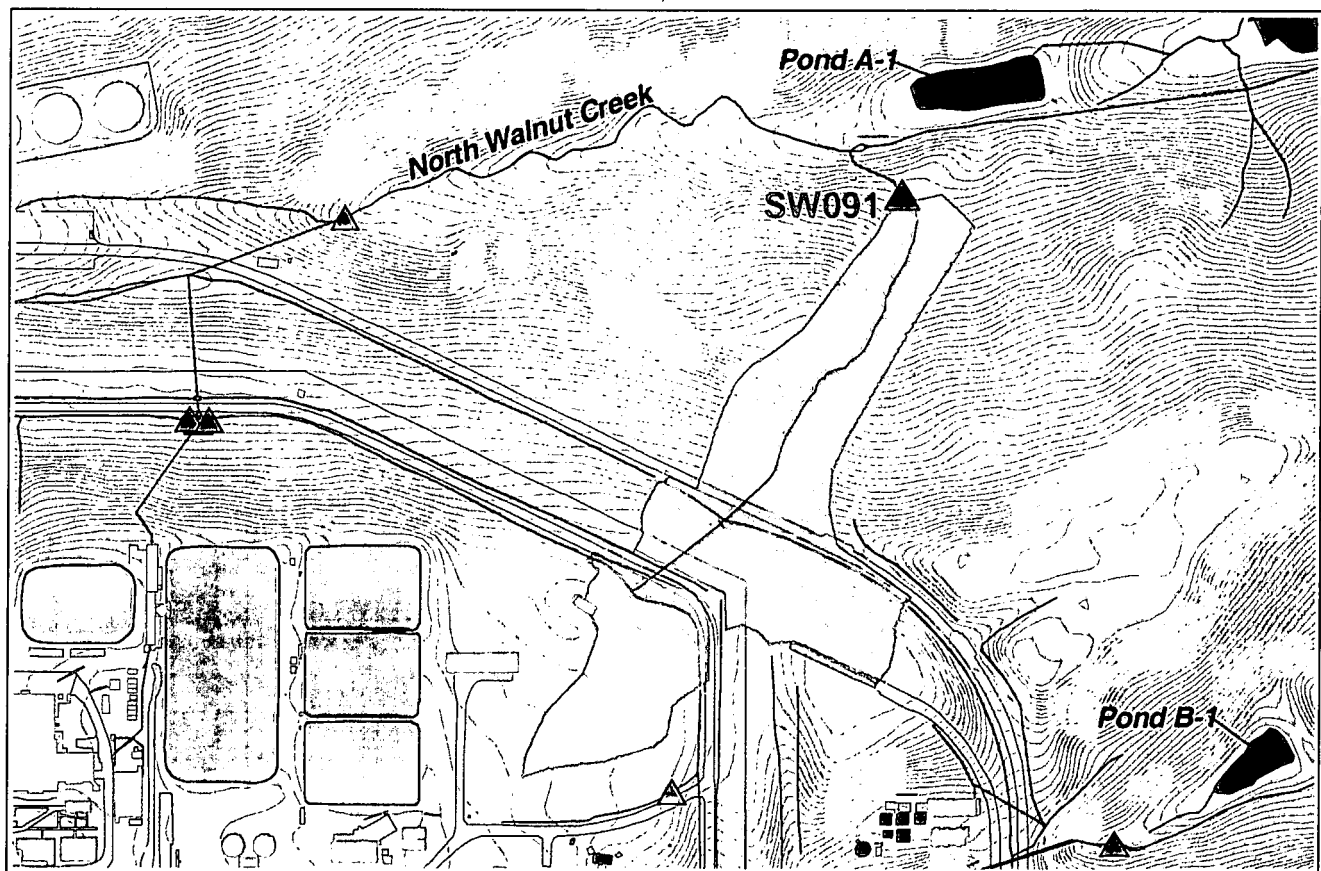


Figure 3-109. Map Showing SW091 Drainage Area.

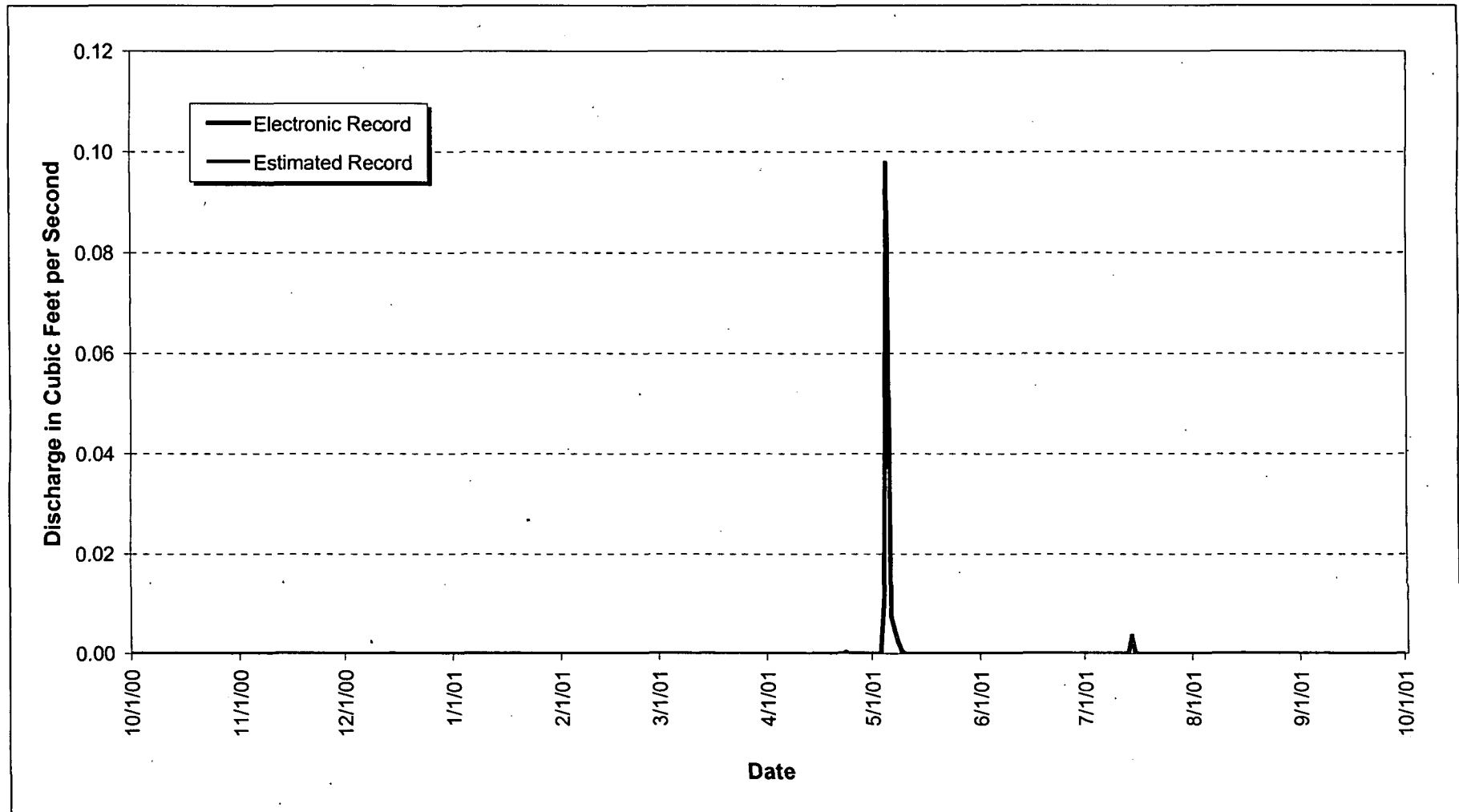


Figure 3-110. WY01 Mean Daily Hydrograph at SW091: North Walnut Creek Tributary Northeast of Solar Ponds.

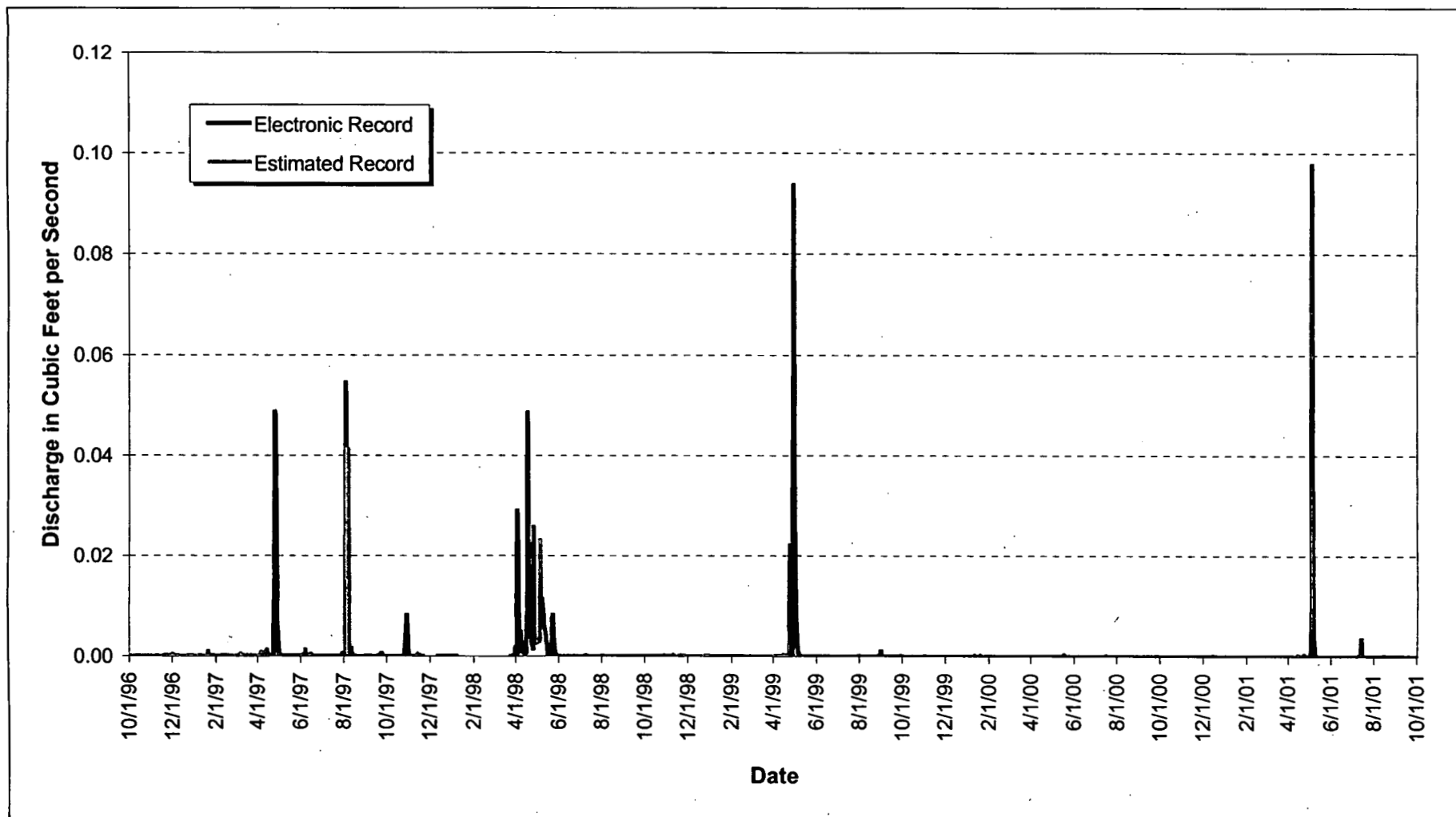


Figure 3-111. WY97-01 Mean Daily Hydrograph at SW091: North Walnut Creek Tributary Northeast of Solar Ponds.

3.2.41 SW093: North Walnut Creek 1300' Upstream of A-1 Bypass

Location

North Walnut Cr. 1300' above A-1 Bypass; State Plane: 2085026, 751720

Drainage Area

- * The basin includes the northern portion of the PA and portions of the western IA south (total of 242.7 acres)
- * IA Areas draining to SW093: 900, 700, 500, 300, and 100

Period of Record

9/11/91 to current year

Gage

Water-stage recorder and 36" suppressed, rectangular, sharp-crested weir

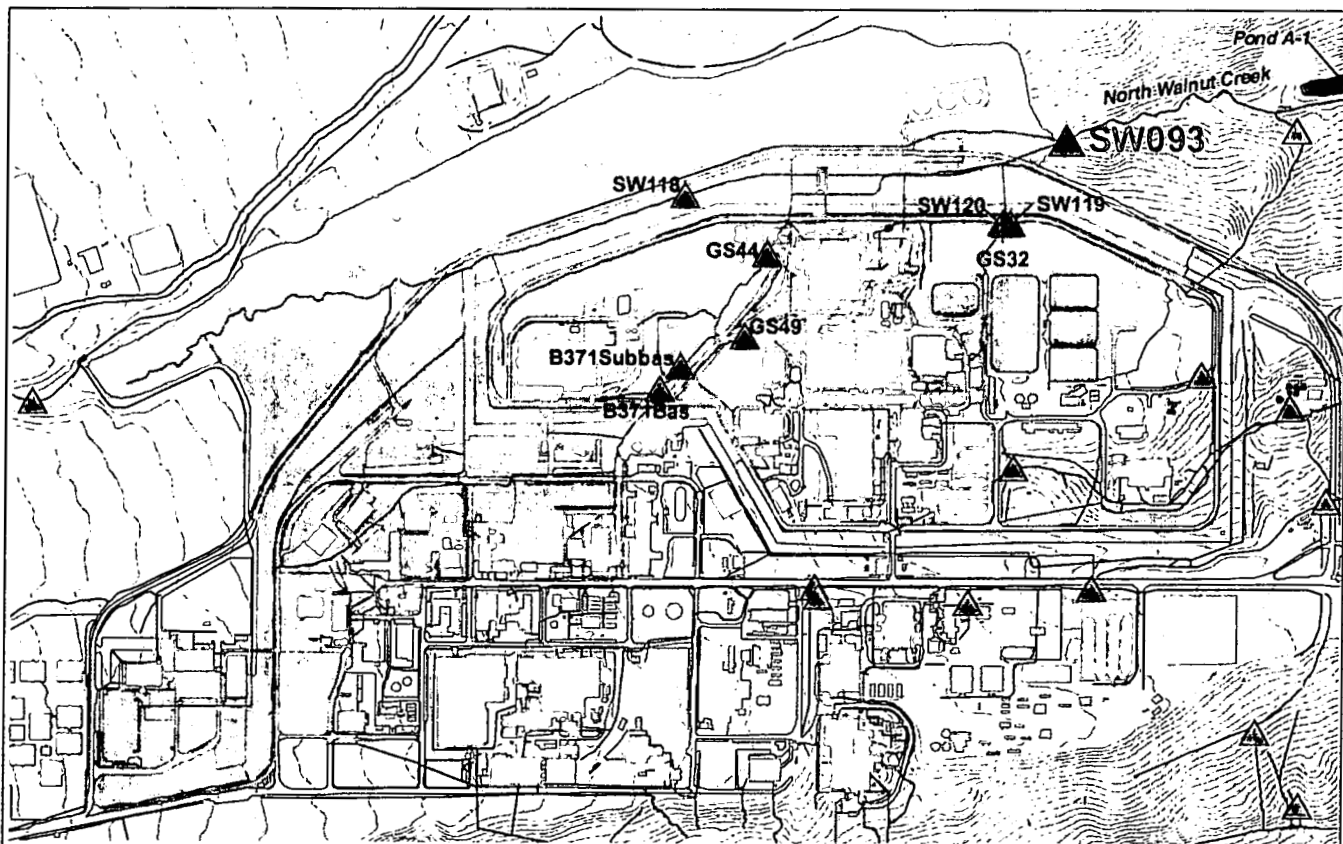


Figure 3-112. Map Showing SW093 Drainage Area.

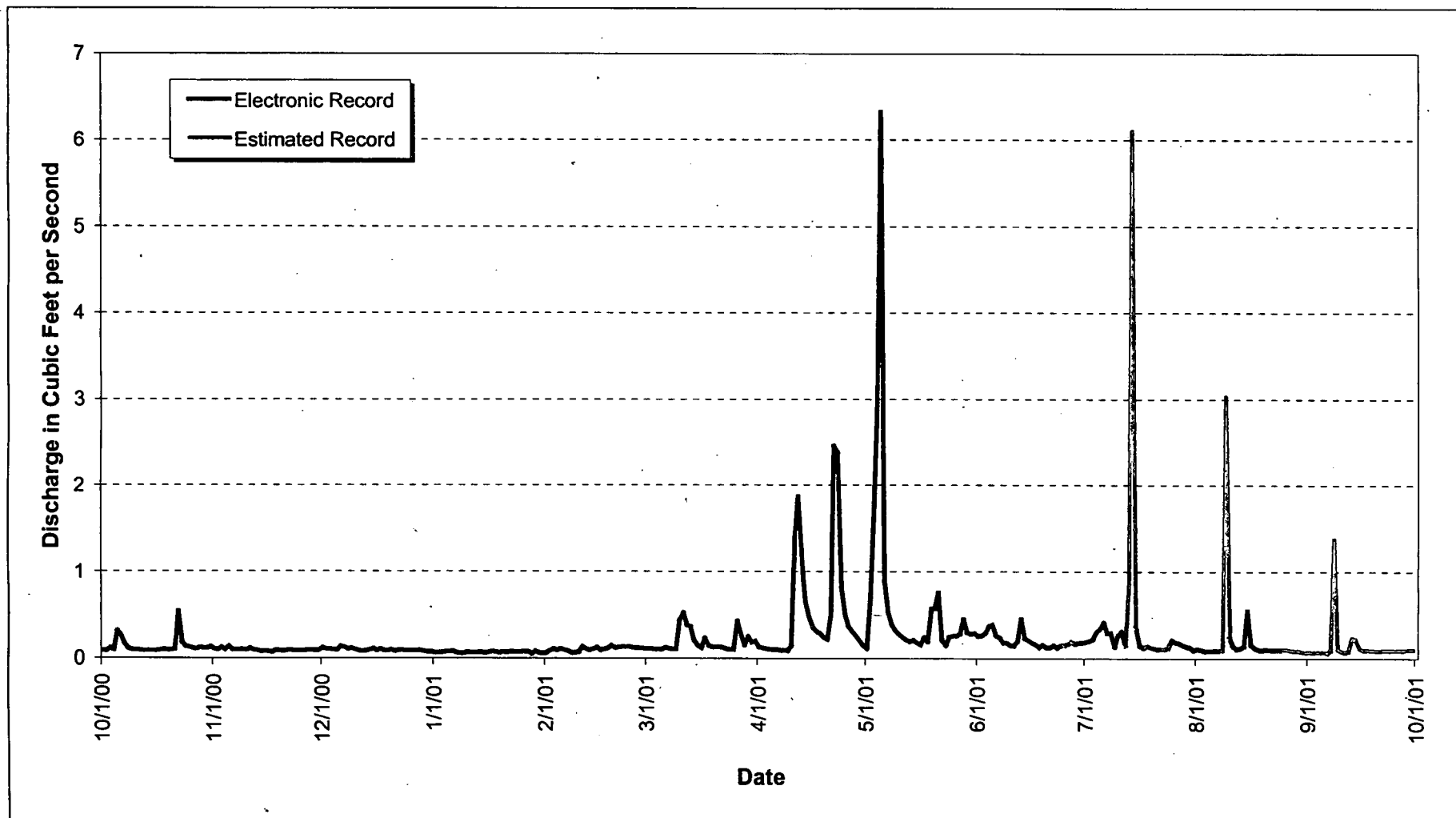


Figure 3-113. WY01 Mean Daily Hydrograph at SW093: North Walnut Creek Upstream of A-1 Bypass.

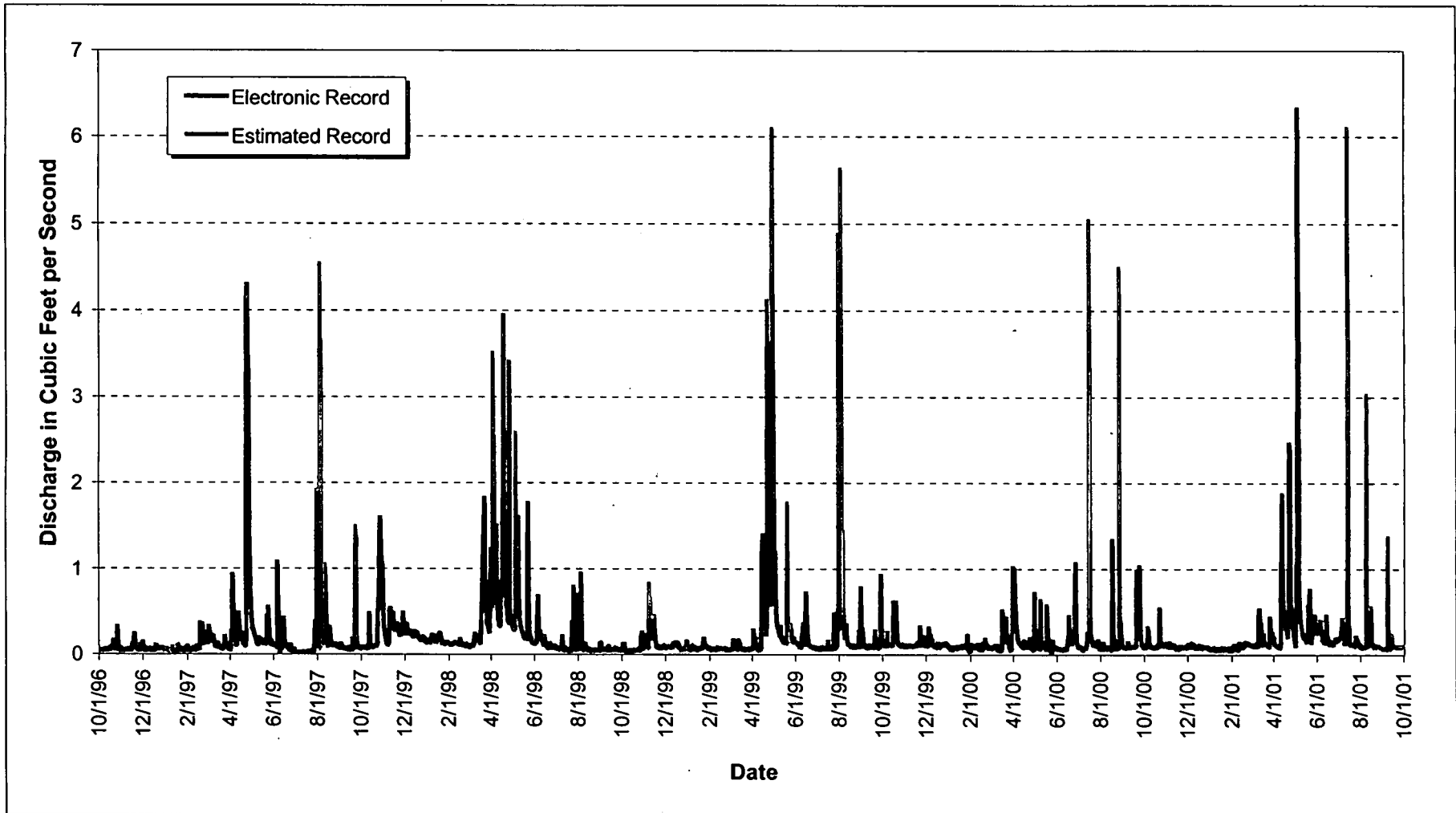


Figure 3-114. WY97-01 Mean Daily Hydrograph at SW093: North Walnut Creek Upstream of A-1 Bypass.

3.2.42 SW118: North Walnut Creek 560' Upstream of Portal 3

Location

N. Walnut Creek west of Portal 3; State Plane: 2082961, 751417

Drainage Area

- * The basin includes the N. Walnut Cr. drainage west of the PA and downstream of the West Diversion Ditch (total of 50.3 acres)
- * IA areas draining to SW118: 300

Period of Record

9/11/91 to current year

Gage

Water-stage recorder 169.5° sharp-crested, v-notch weir

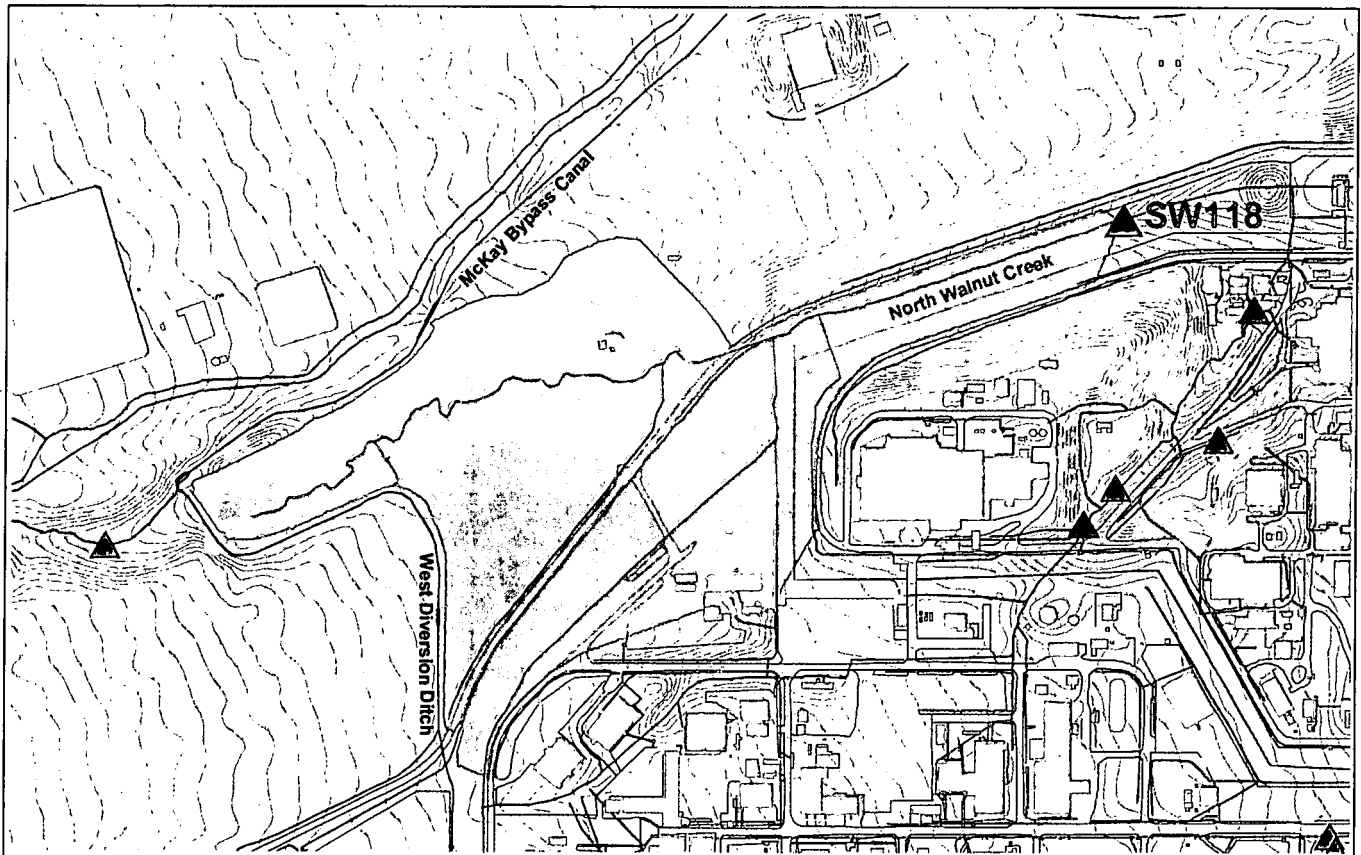


Figure 3-115. Map Showing SW118 Drainage Area.

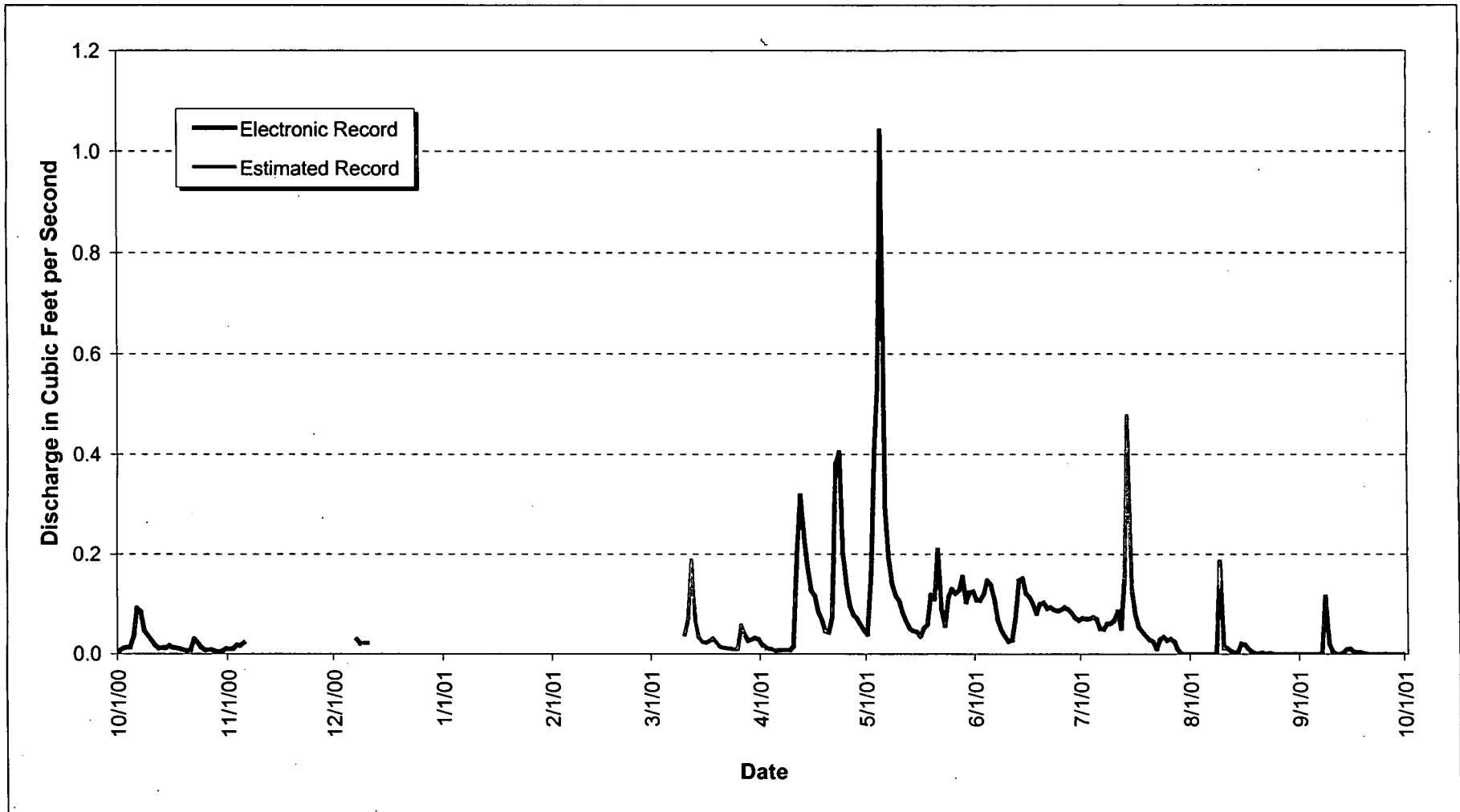


Figure 3-116. WY01 Mean Daily Hydrograph at SW118: North Walnut Creek Upstream of Portal 3.

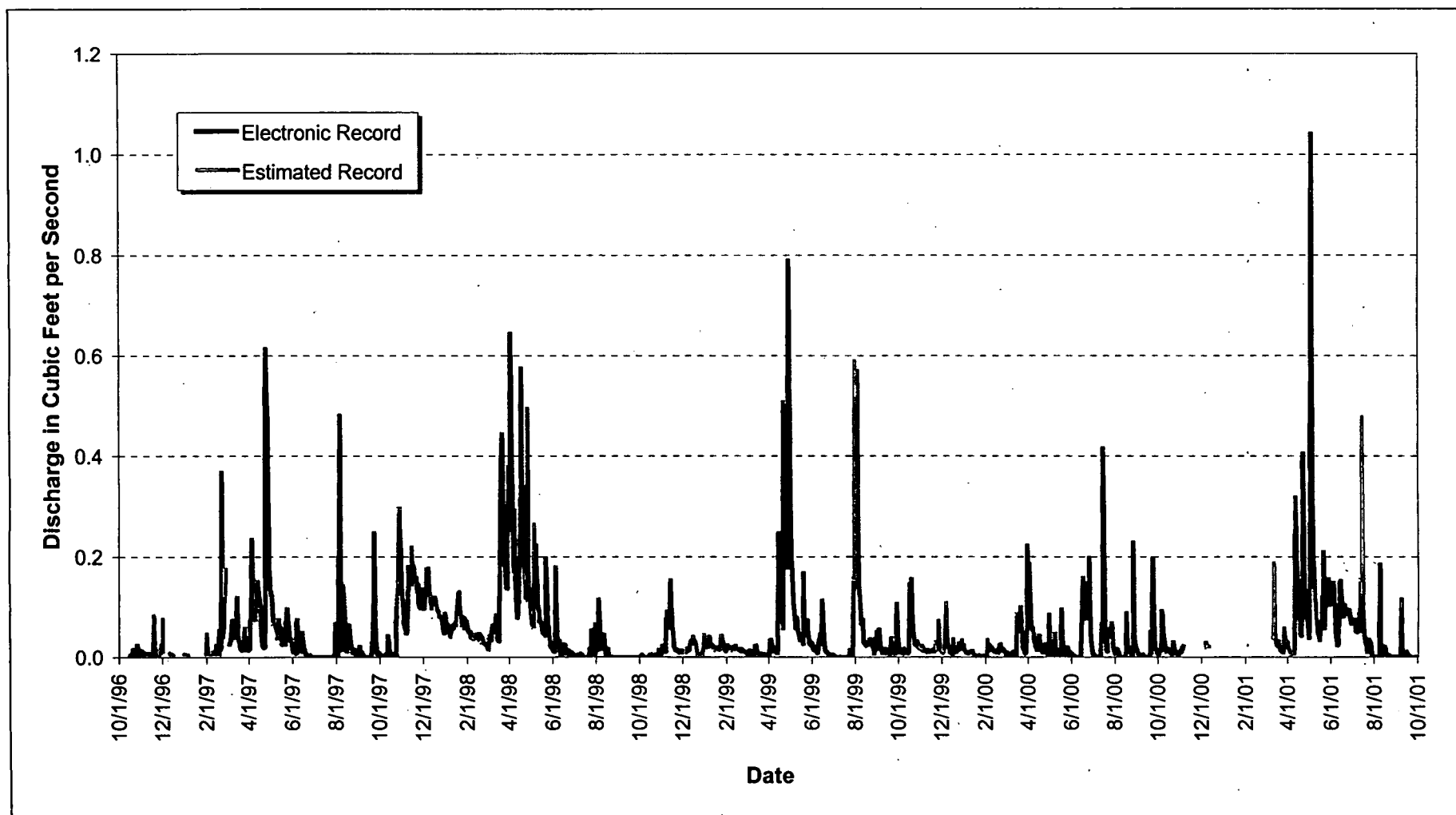


Figure 3-117. WY97-01 Mean Daily Hydrograph at SW118: North Walnut Creek Upstream of Portal 3.

3.2.43 SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B

Location

Ditch along PA Perimeter Road north of Solar Pond 207B; State Plane: 2084723, 751268

Drainage Area

- * The basin includes areas north and east of the Solar Ponds (total of 7.8 acres)
- * IA Areas draining to SW119: 900

Period of Record

4/4/01 to current year

Gage

Water-stage recorder and 9" Parshall flume

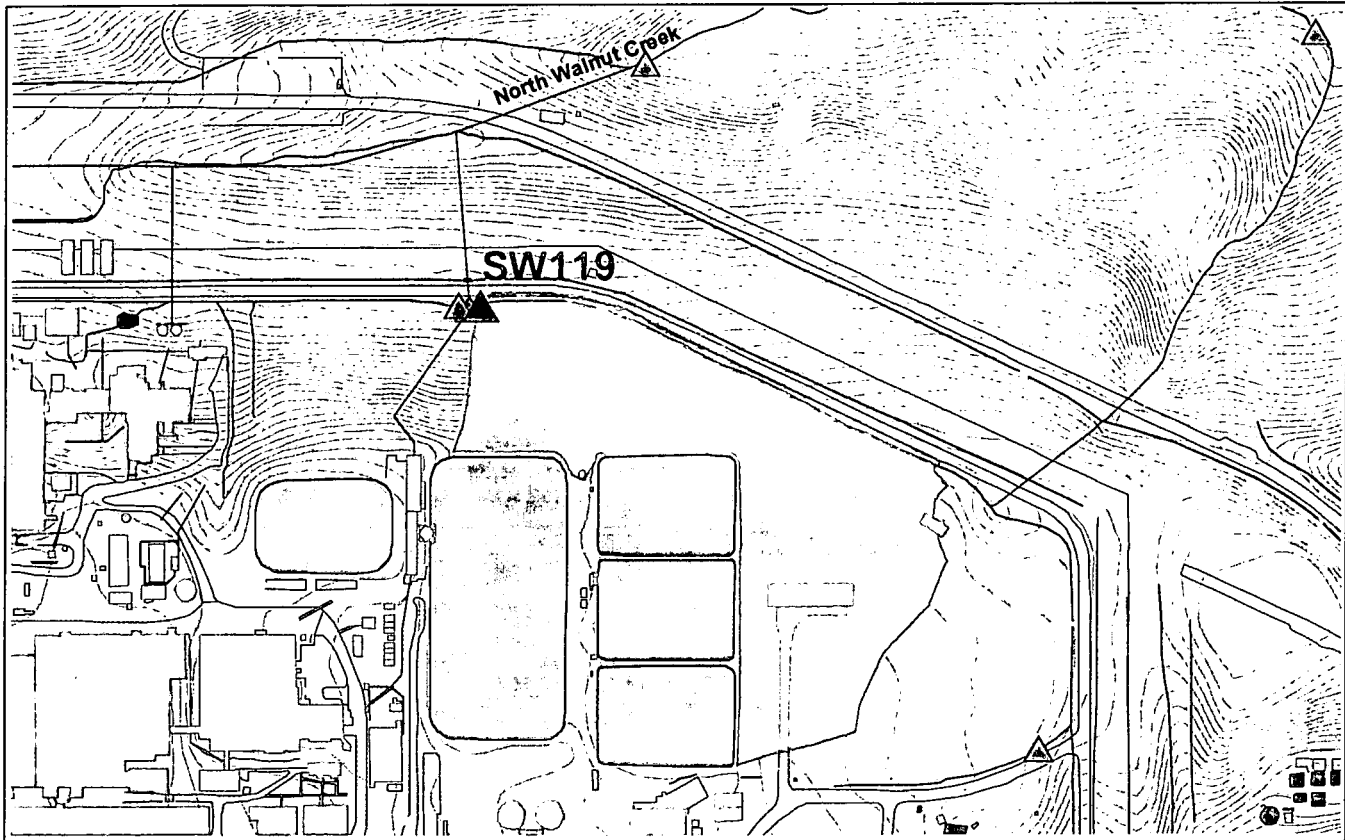


Figure 3-118. Map Showing SW119 Drainage Area.

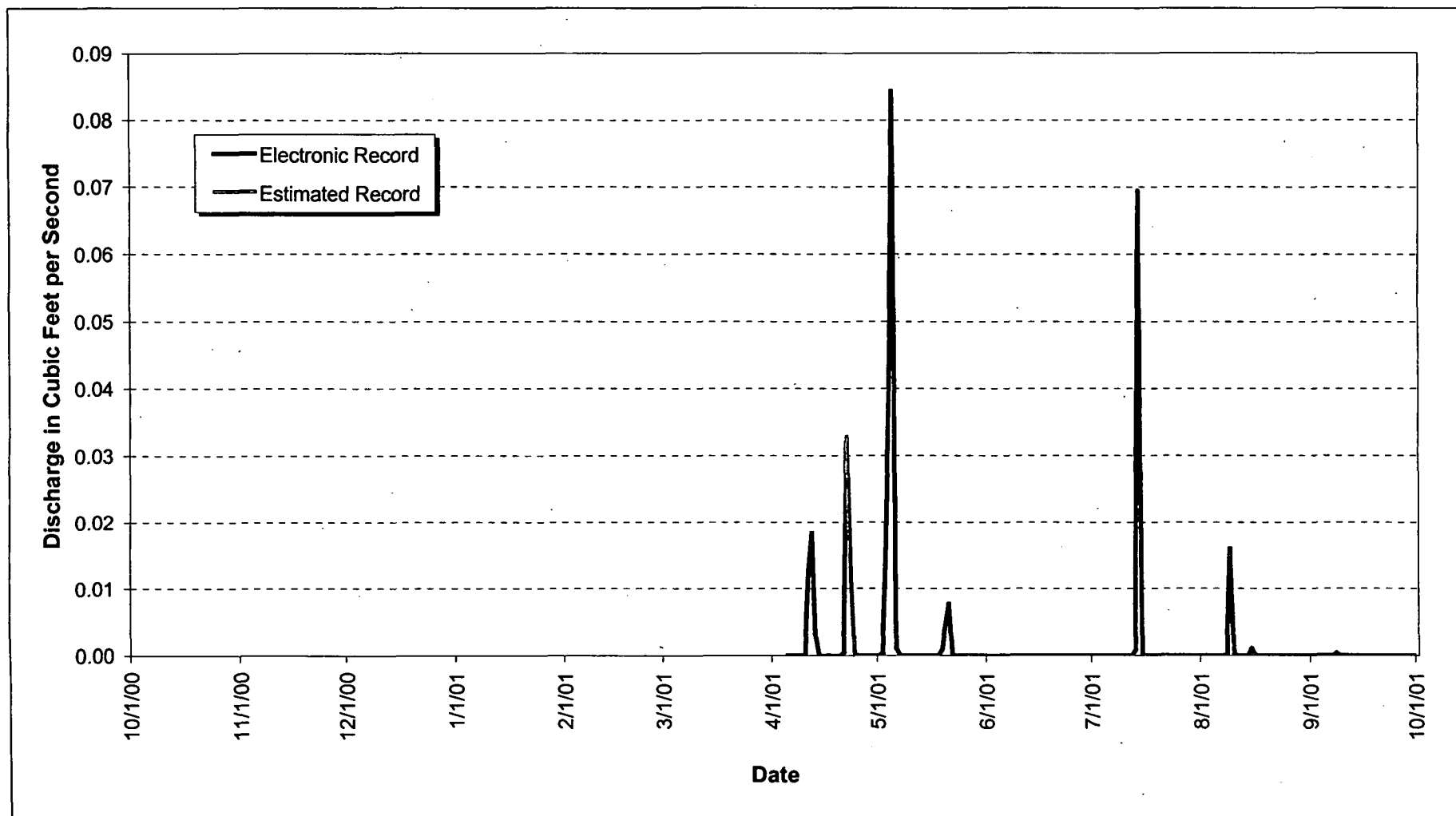


Figure 3-119. WY01 Mean Daily Hydrograph at SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B.

3.2.44 SW120: Ditch Along PA Perimeter Road North of Solar Pond 207A

Location

Ditch along PA Perimeter Rd. draining 771/774 Area; State Plane: 2084682, 751269

Drainage Area

- * The basin includes the northeast portion of the B771/774 subdrainage (total of 12.8 acres)
- * IA Areas draining to SW120: 700

Period of Record

3/14/00 to current year

Gage

Water-stage recorder and 4" cutthroat flume

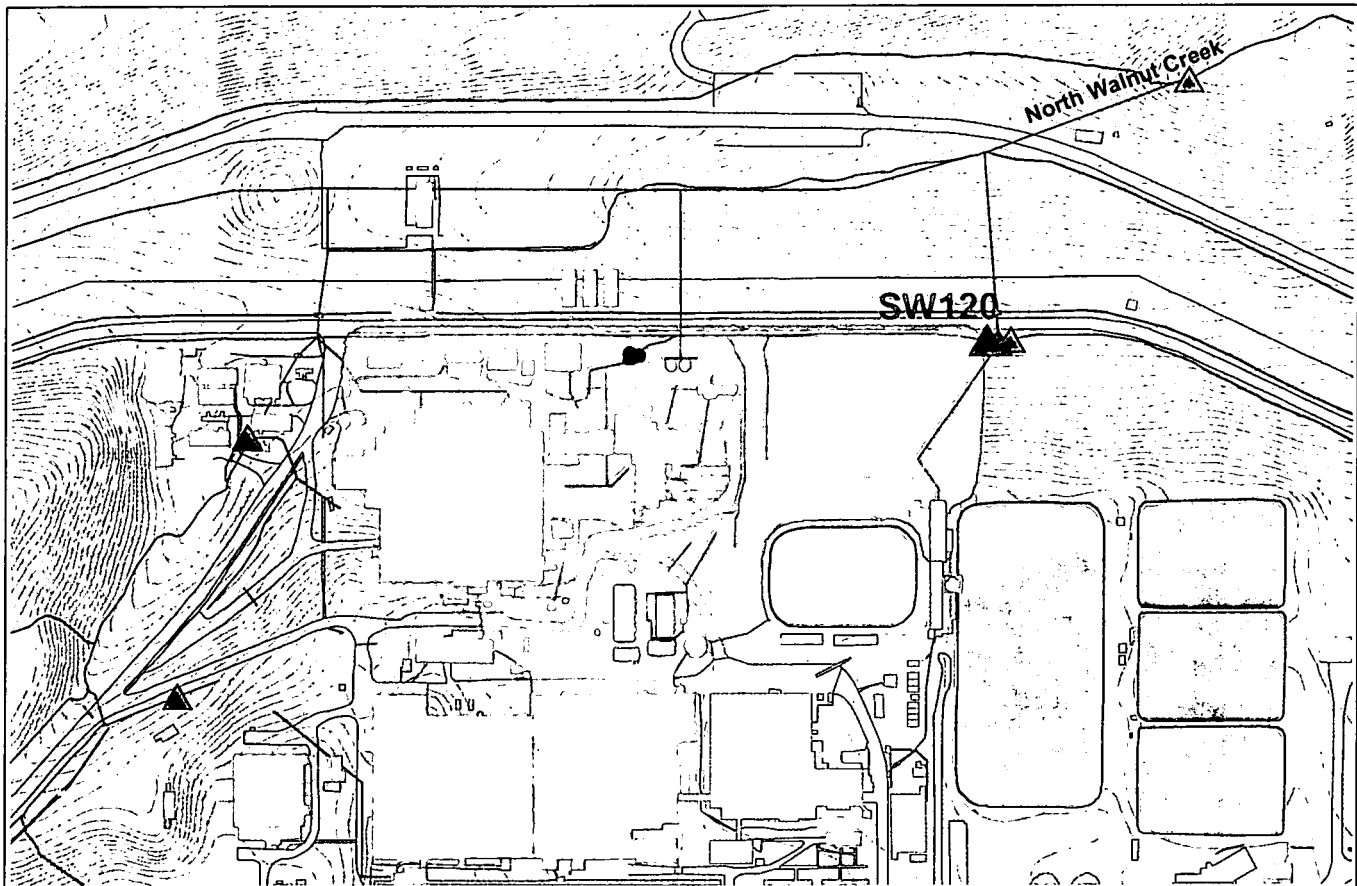


Figure 3-120. Map Showing SW120 Drainage Area.

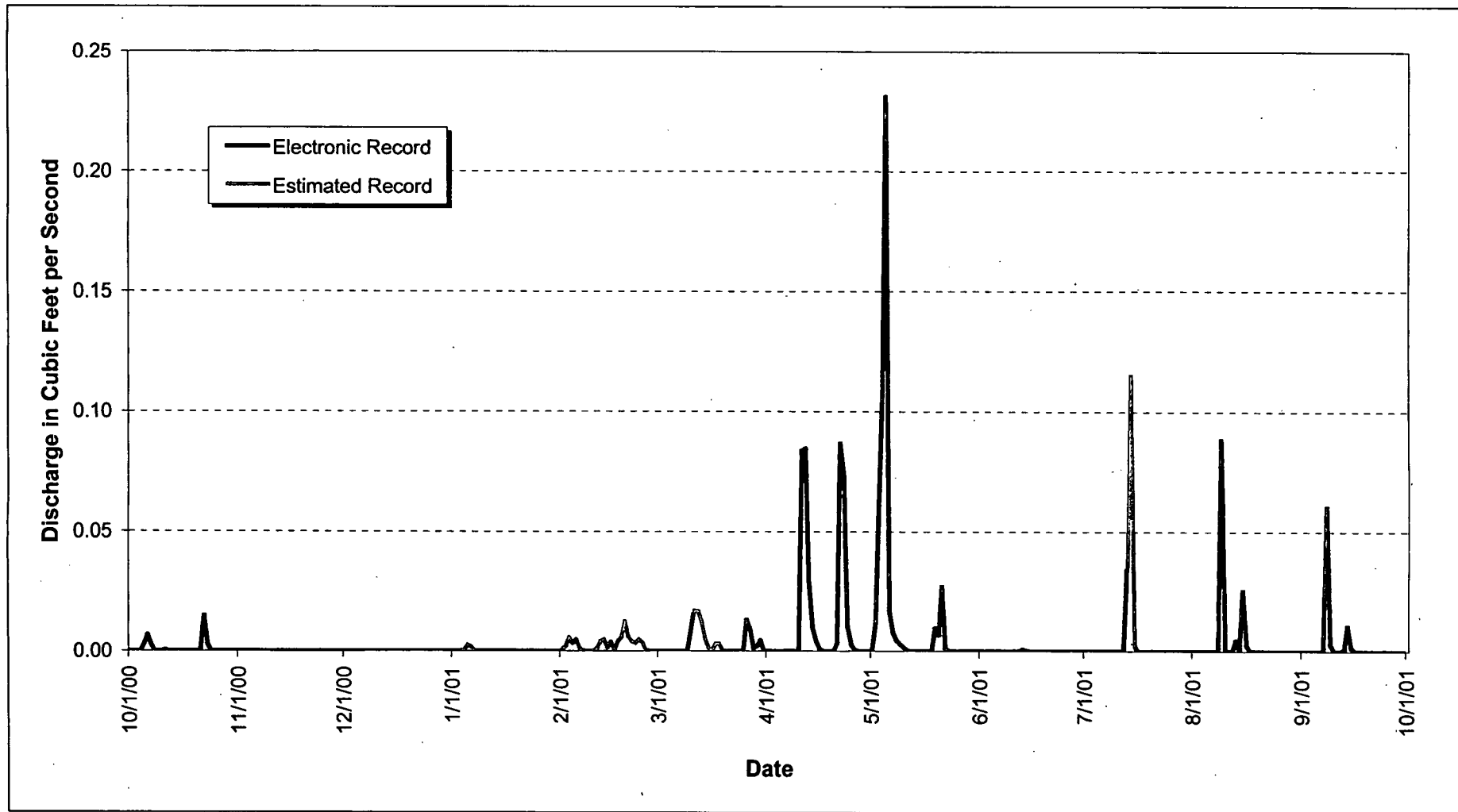


Figure 3-121. WY01 Mean Daily Hydrograph at SW120: PA Perimeter Road Ditch North of Solar Pond 207A.

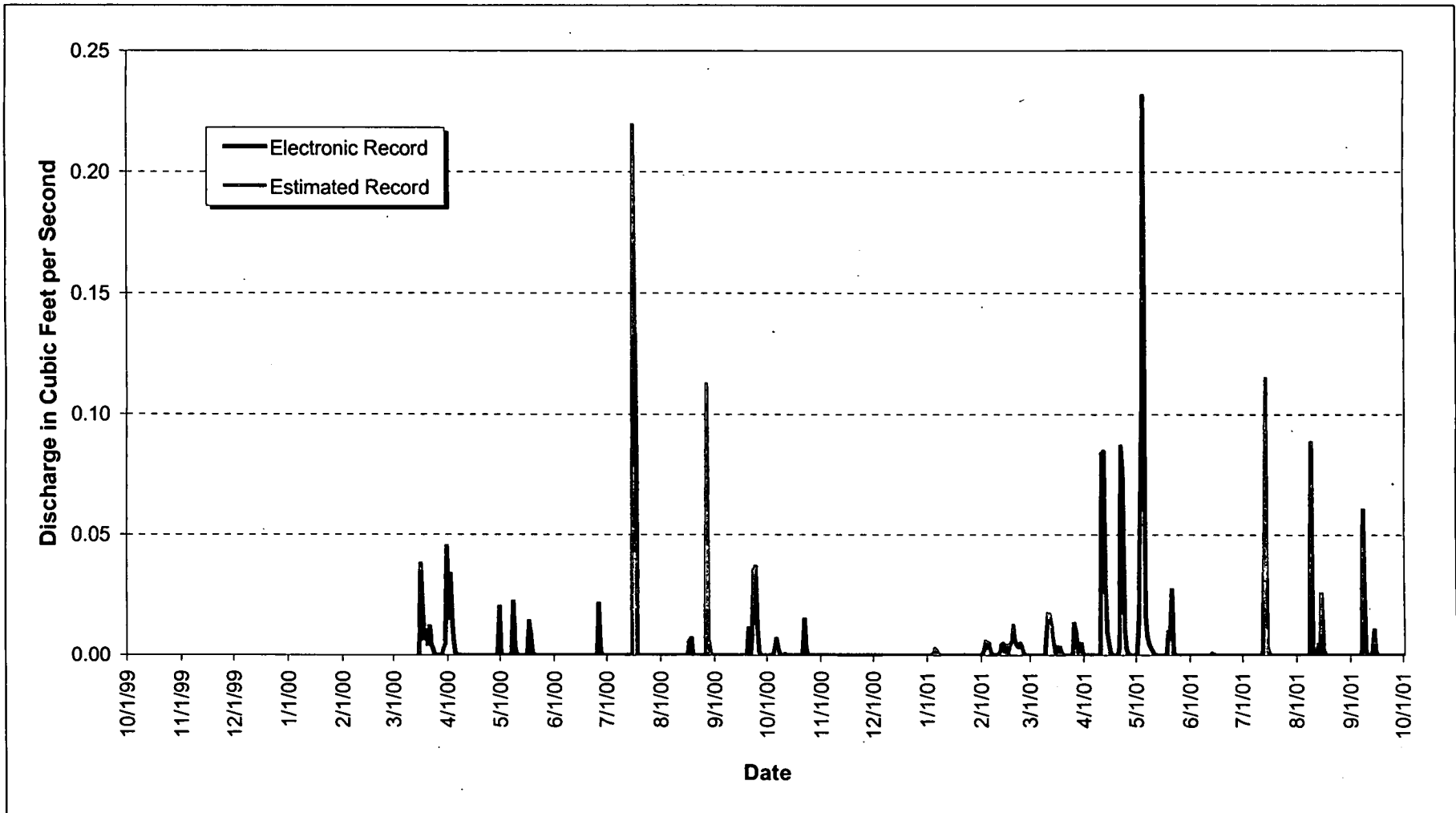


Figure 3-122. WY00-01 Mean Daily Hydrograph at SW120: PA Perimeter Road Ditch North of Solar Pond 207A.

3.2.45 SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate

Location

Pump discharge outfall for gravel pits northeast of West Gate; State Plane: 2075942, 750049

Drainage Area

- * The basin includes the gravel pit areas that are pump discharged to Rock Creek
- * IA Areas draining to SW134: none

Period of Record

5/4/94 to current year

Gage

Water-stage recorder and 6" Parshall flume with weir insert

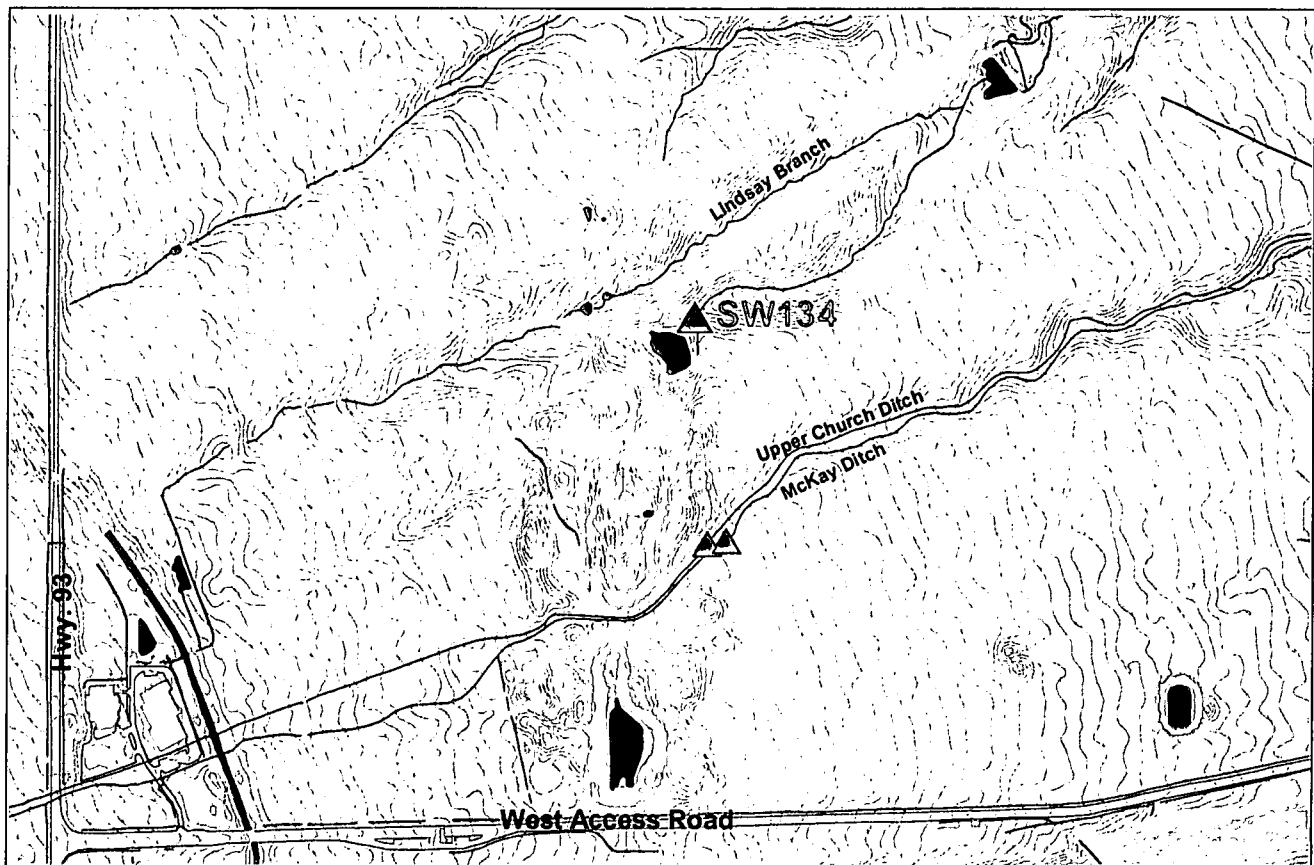


Figure 3-123. Map Showing SW134 Location.

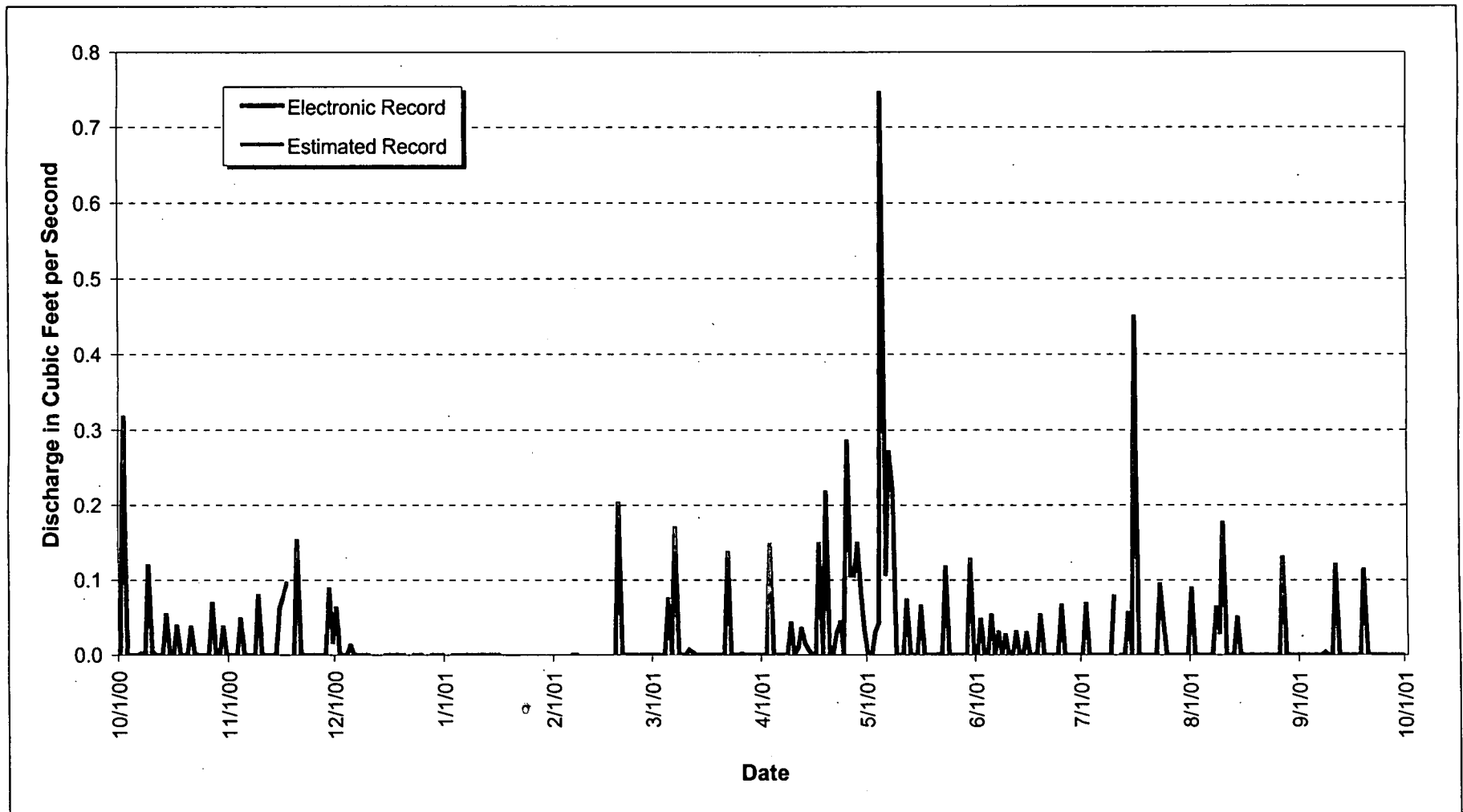


Figure 3-124. WY01 Mean Daily Hydrograph at SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate.

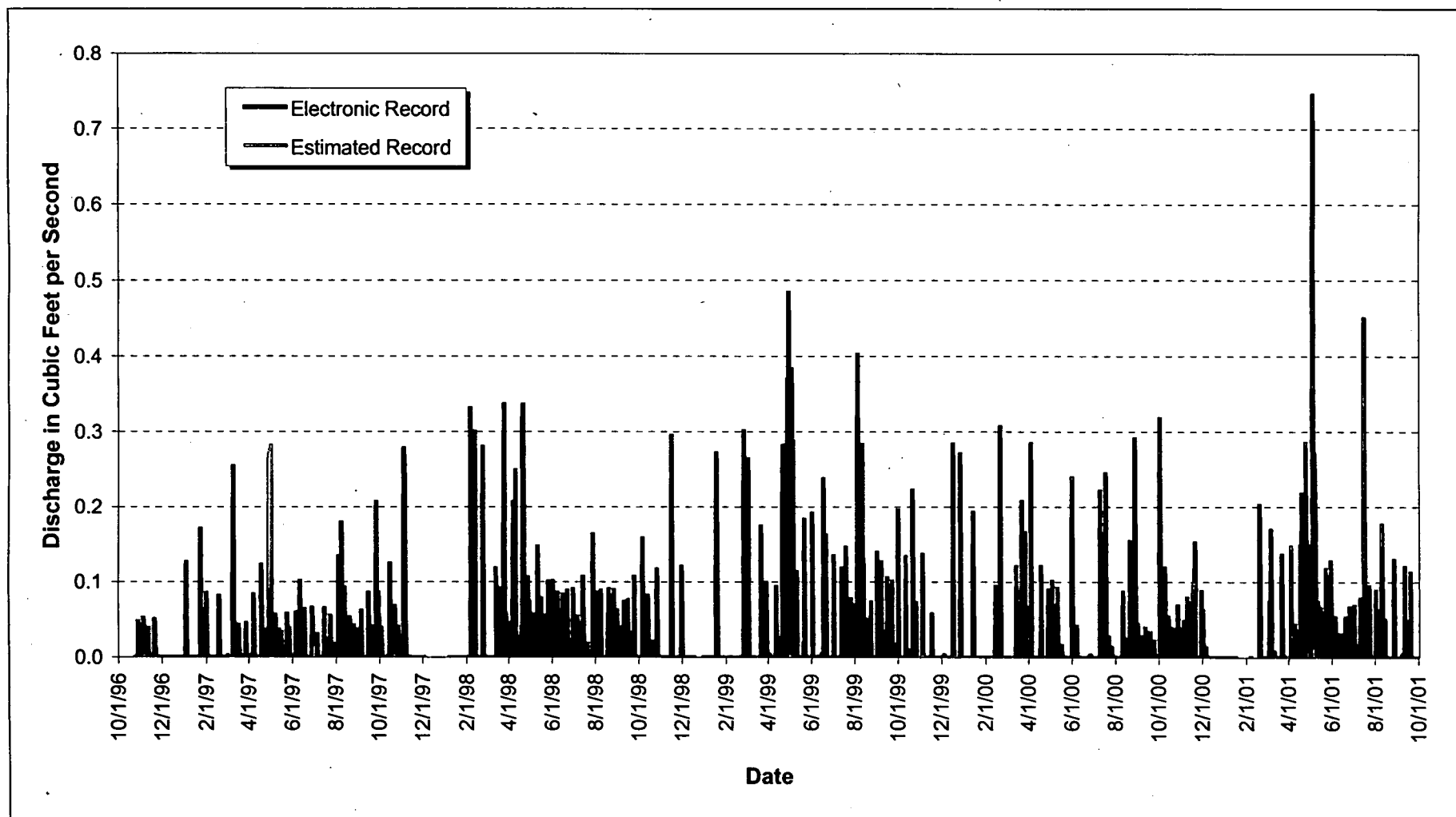


Figure 3-125. WY97-01 Mean Daily Hydrograph at SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate.

3.2.46 B371Bas and B371Subbas: B371 Basement and Subbasement Footing Drain Outfalls

Location

B371 footing drain outfalls to a ditch tributary to N. Walnut Cr.

B371Bas: State Plane 2082831, 750362

B371Subbas: State Plane 2082939, 750485

Drainage Area

* NA

Period of Record

WY98 to current year

Gage

11.4 Degree V-Notch Weirs

Flow data are not given in this report. Data can be found as reported in Appendix 1 of the *Building 371 Subsurface Drain System* procedure (4-K14-SDS-371).

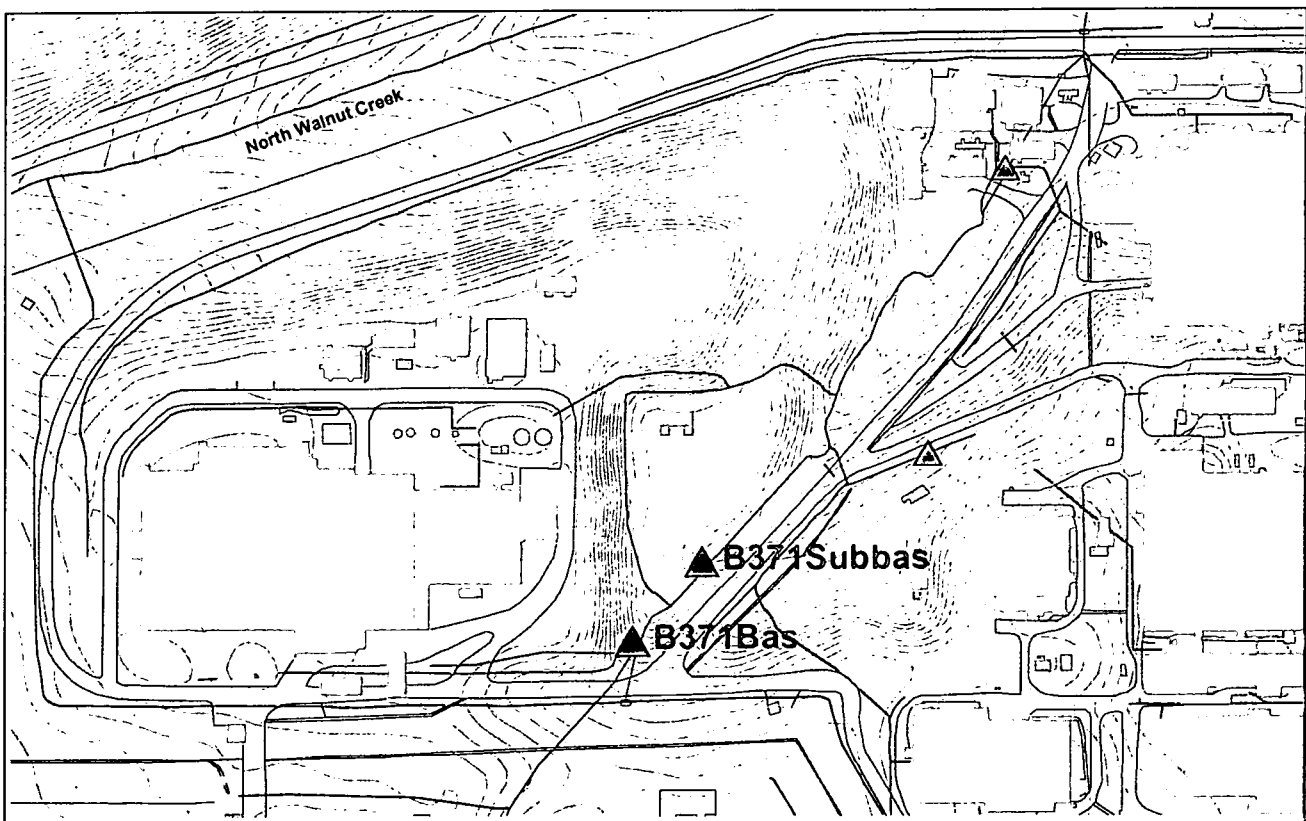


Figure 3-126. Map Showing B371 Basement and Subbasement Footing Drain Outfall Locations.

3.2.47 995POE: WWTP Effluent

Location

Outfall for WWTP effluent at UV disinfection building; State Plane: 2086240, 750261

Drainage Area

- * NA; effluent discharges to Pond B-3

Period of Record

10/1/00 to current year; POE sampling began on 10/27/00; flow record reported is from WWTP facility system

Gage

60 Degree V-Notch Weir

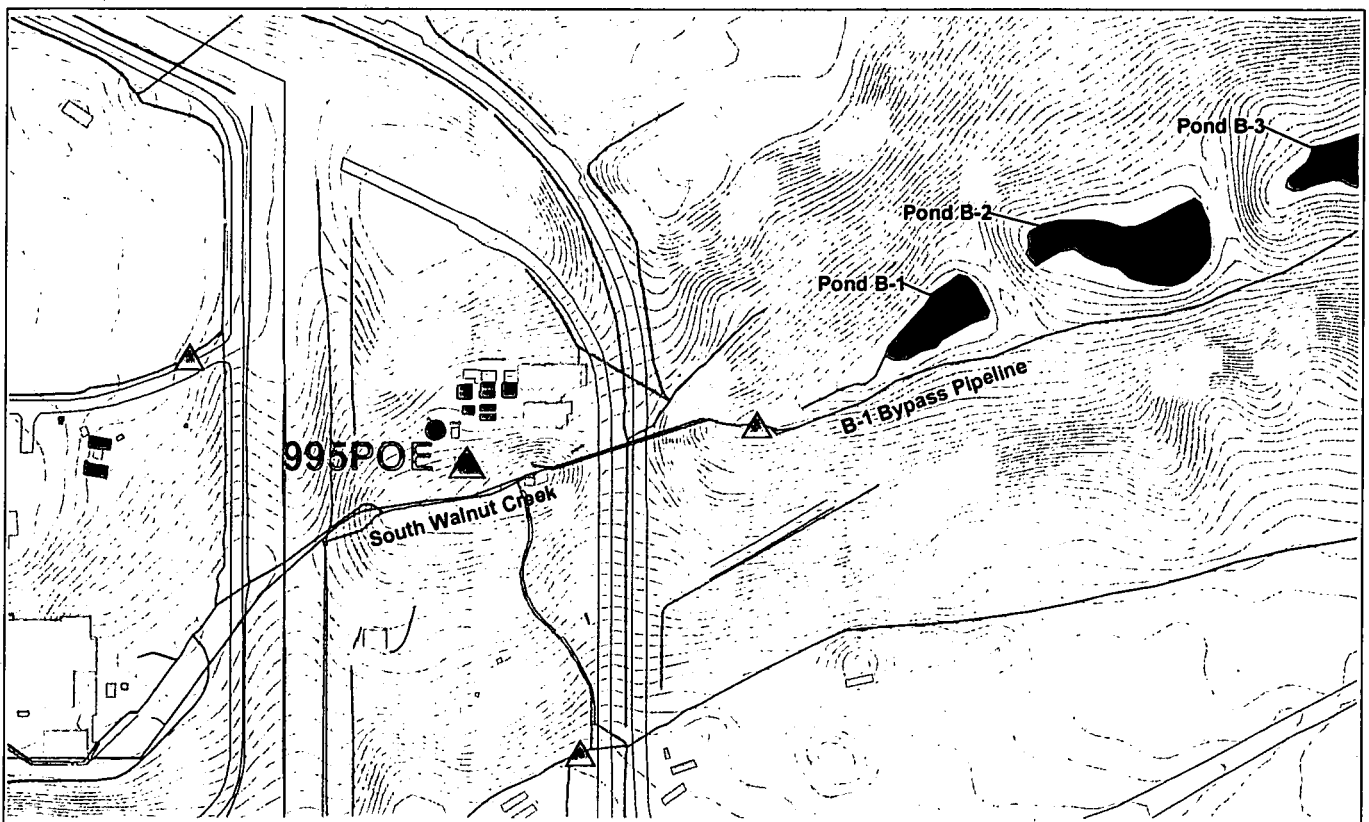


Figure 3-127. Map Showing 995POE Location.

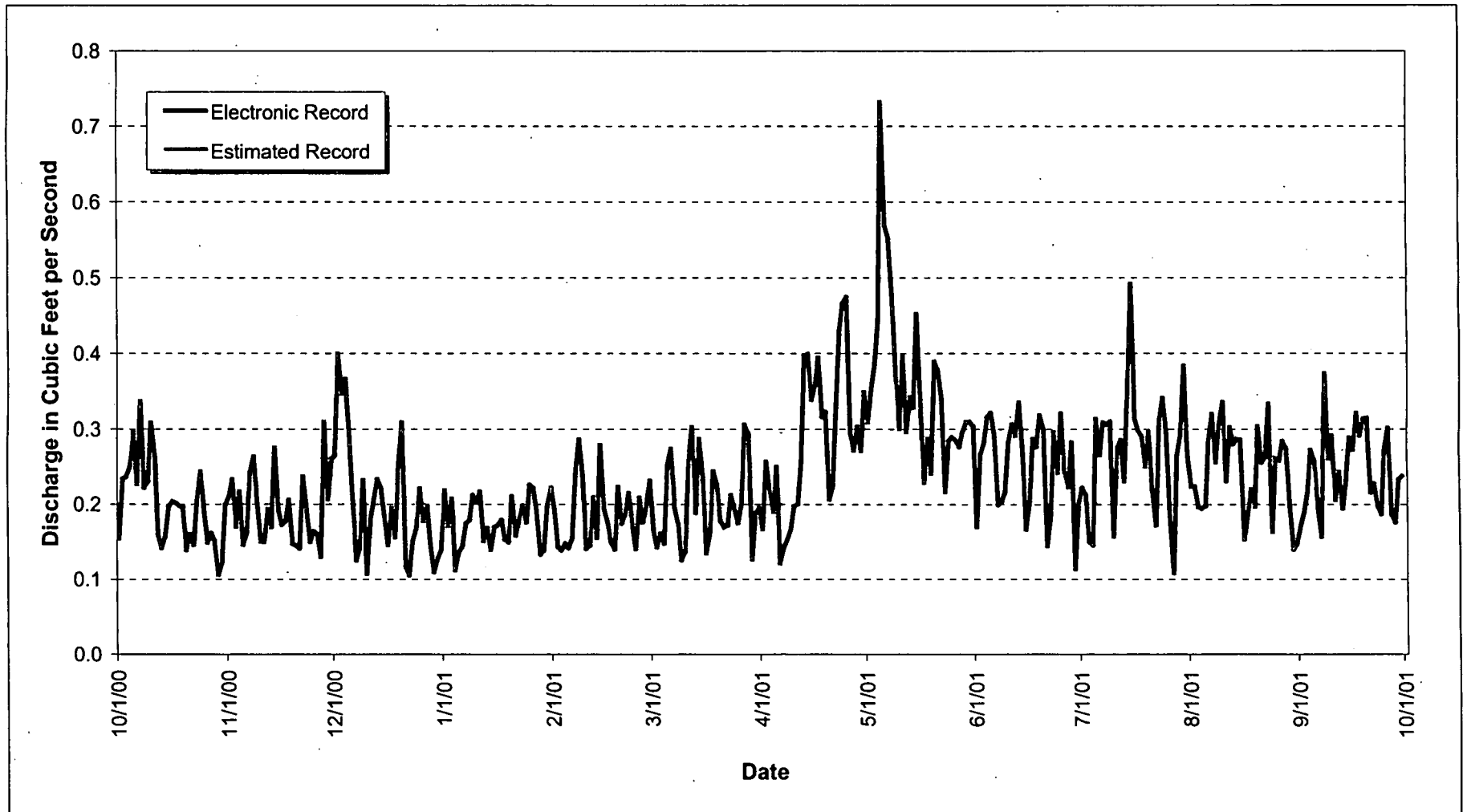


Figure 3-128. WY01 Mean Daily Hydrograph at 995POE: WWTP Effluent.

3.3 PRECIPITATION DATA

During Water Year 2001, 10 precipitation gages were operated as part of the automated surface-water monitoring network. The locations employ tipping-bucket rain gages generally mounted at ground level. Precipitation totals are logged on 5- and/or 15-minute intervals. The gages are not heated and may not accurately record equivalent precipitation in snowfall.

The following sections present multiple figures summarizing the precipitation data collected for Water Years 1997-2001.

Table 3-1. Monitoring Network Precipitation Gage Information.

Location Code [Surface-Water Gage]	X Coordinate [State Plane]	Y Coordinate [State Plane]	Period of Operation
PG51 [NA]	2078704	751264	<10/1/92 – current year
PG52 [SW022]	2086407	749734	<10/1/92 – current year
PG55 [NA]	2087896	747239	7/19/94 – current year
PG56 [NA]	2091513	752593	7/18/94 – current year
PG58 [GS01]	2093820	744893	10/11/96 – current year
PG59 [GS03]	2093611	753649	4/1/96 – current year
PG60 [GS04]	2085558	758144	4/1/96 – current year
PG61 [GS05]	2078428	747260	4/1/96 – current year
PG62 [SW118]	2082961	751417	10/29/96 – current year
PG64 [GS27]	2083689	749208	2/15/00 – current year

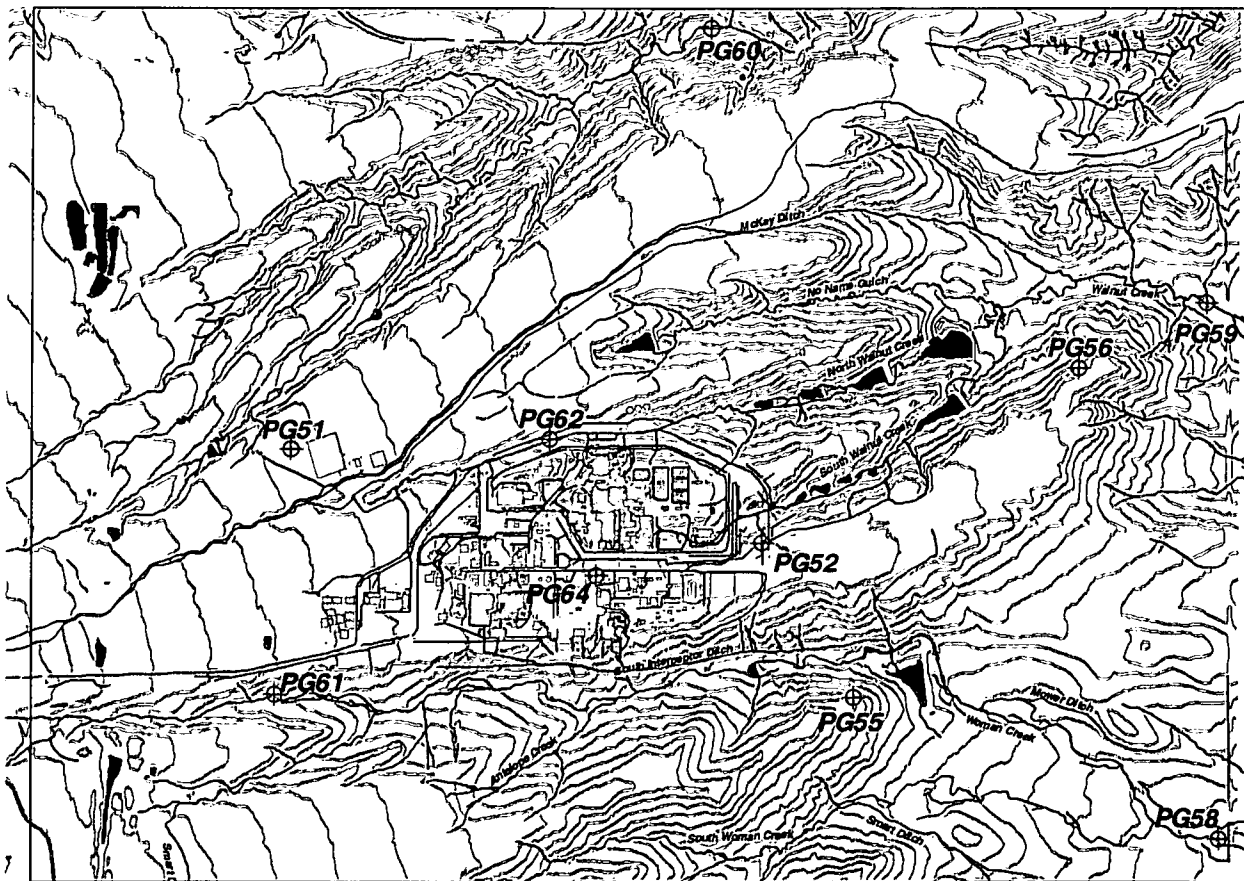
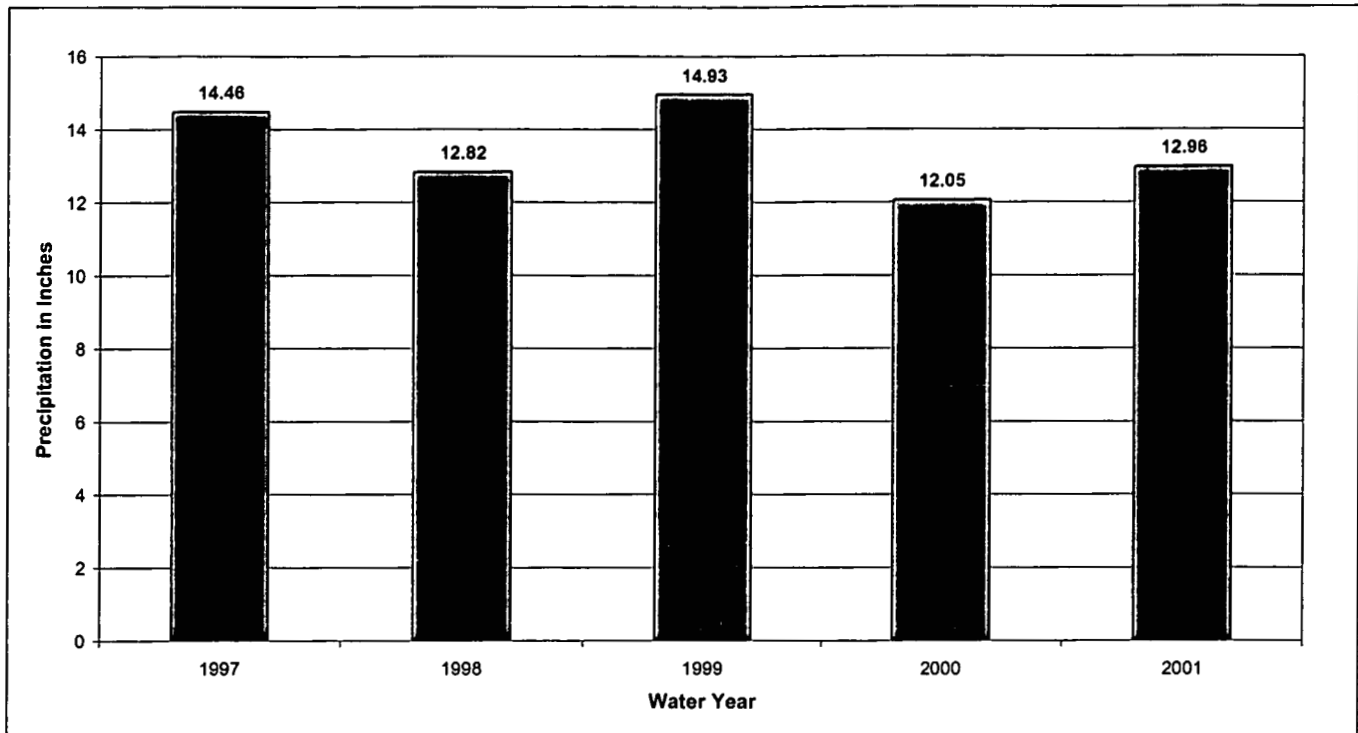


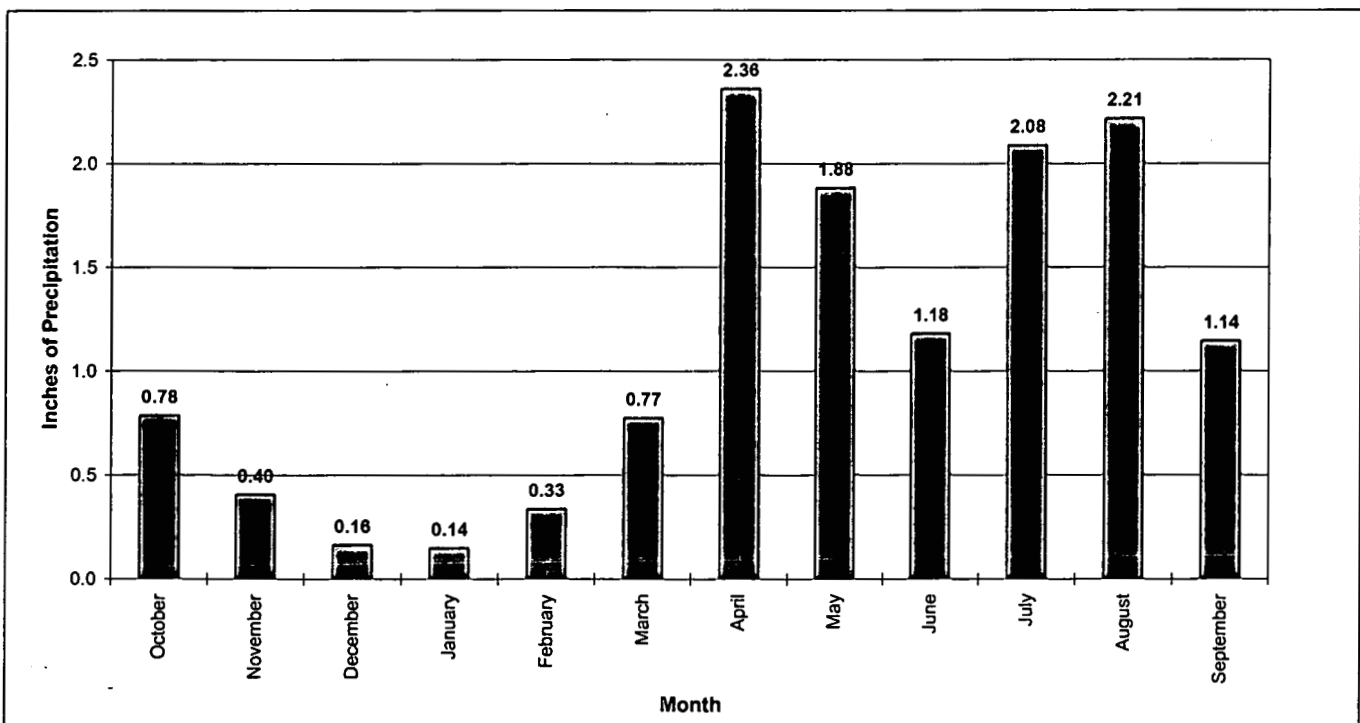
Figure 3-129. Map Showing Location of Automated Surface-Water Monitoring Precipitation Gages: WY01.

3.3.1 WY97-01 Summary



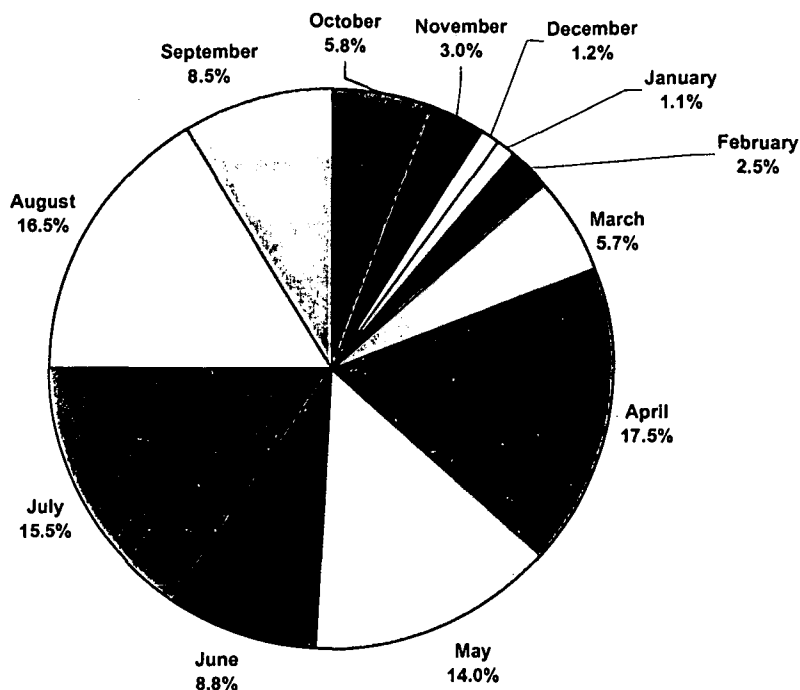
Note: Arithmetic average of gages in operation.

Figure 3-130. Total Precipitation for Water Years 1997 – 2001.



Note: Arithmetic average of gages in operation.

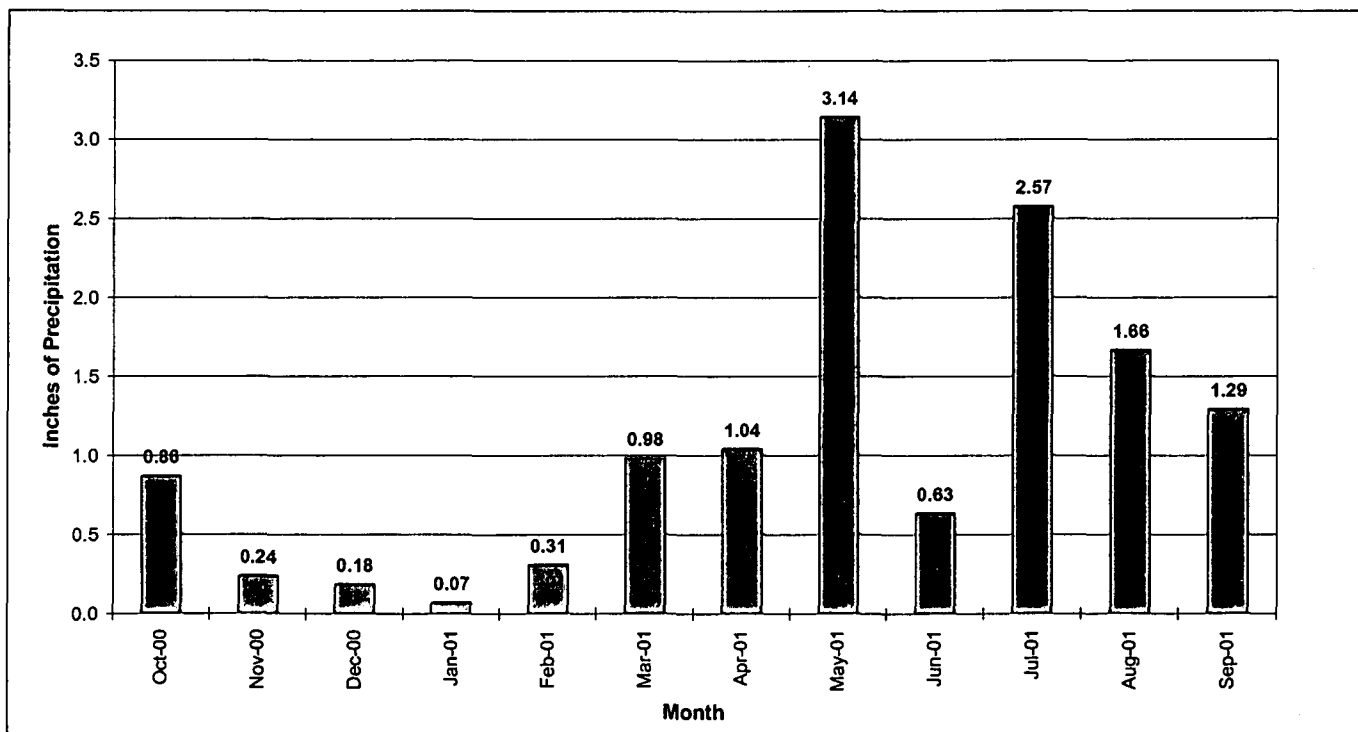
Figure 3-131. Average Monthly Precipitation for Water Years 1997 – 2001.



Note: Arithmetic average of gages in operation.

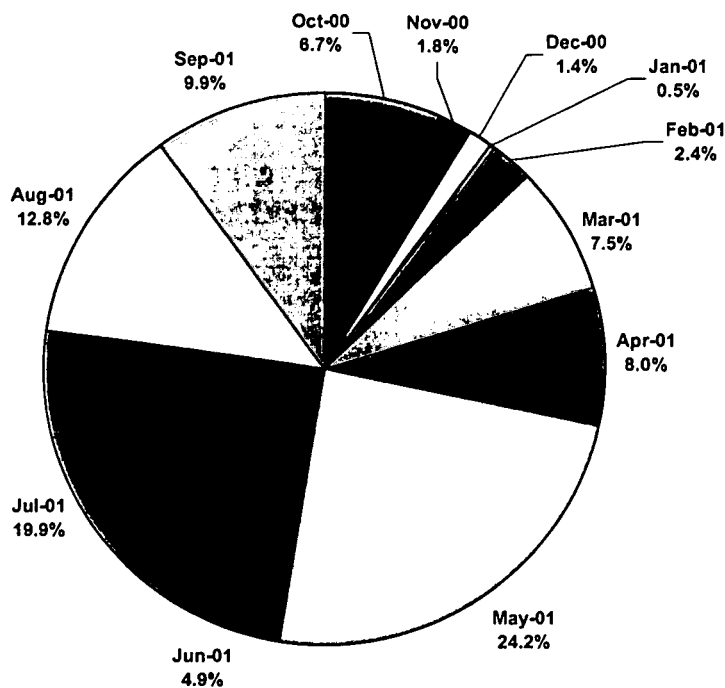
Figure 3-132. Relative Monthly Precipitation Totals for Water Years 1997 – 2001.

3.3.2 Water Year 2001



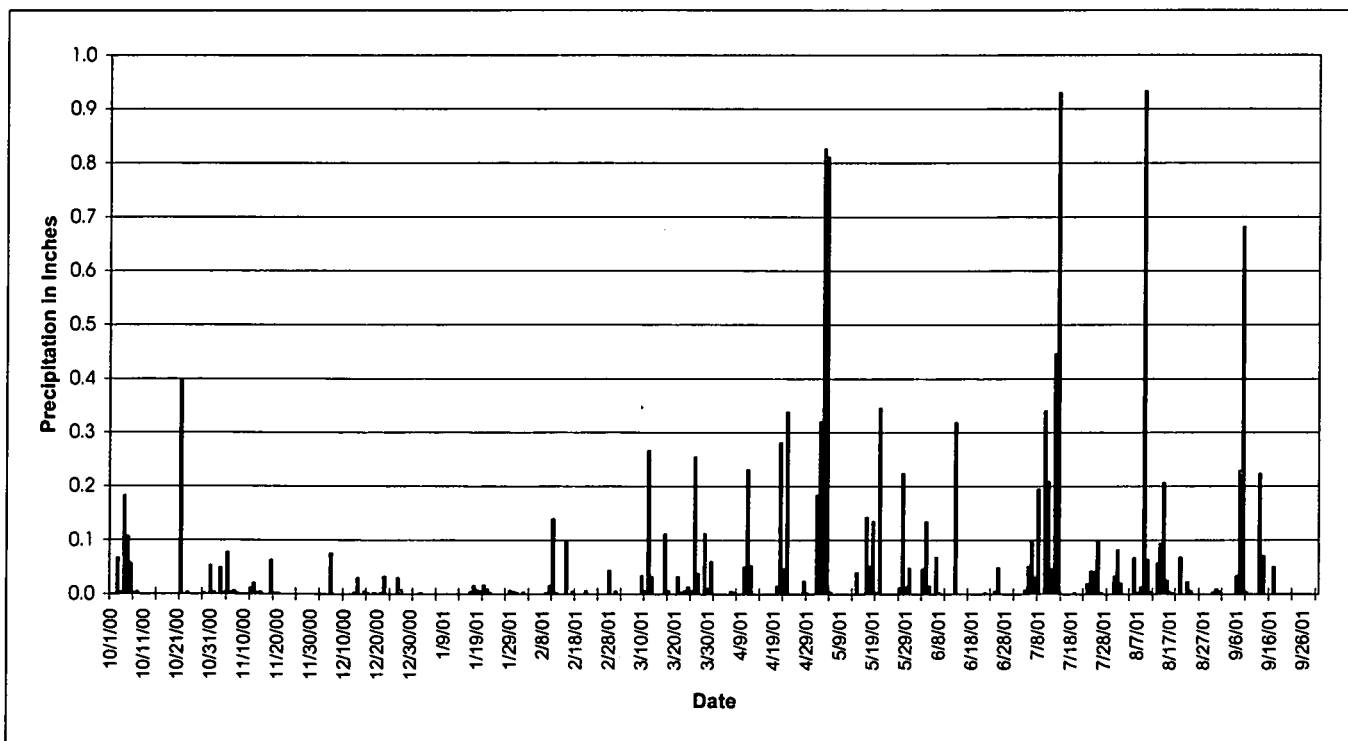
Note: Arithmetic average of gages in operation.

Figure 3-133. Average Monthly Precipitation for Water Year 2001.



Note: Arithmetic average of gages in operation.

Figure 3-134. Relative Monthly Precipitation Volumes for Water Year 2001.



Note: Arithmetic average of gages in operation.

Figure 3-135. Daily Precipitation Totals for Water Year 2001.

4. WATER-QUALITY SUMMARIES

This section presents water-quality summaries for selected analytes for the period October 1, 1996 through September 30, 2001 (WY97-01) for the locations operational in WY01. Radionuclides summarized in Section 4.1 include Pu, Am⁵, U-233,234, U-235, U-238, and tritium. Additionally, the POE metals (total Be, dissolved Cd, total Cr, dissolved Ag) are summarized in Section 4.2. Many additional analyses are also performed based on the specific monitoring objective. The results and evaluation for these analytes are presented in detail in the specific sections (Section 6 through 15) by monitoring objective.

4.1 RADIONUCLIDES

The following summaries include all results that were not rejected through the verification/validation process. When a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

The Pu/Am ratio is calculated for each sample by dividing the Pu result by the corresponding Am result. Ratios are only calculated for samples where *both* the Pu and Am results are greater than 0.015 pCi/L (generally the MDA for Pu and Am analyses) to exclude ratios for very low results with high relative error.

The U-233,234/U-238 ratio is calculated for each sample by dividing the U-233,234 result by the corresponding U-238 result. Ratios are only calculated for samples where *both* the U-233,234 and U-238 results are greater than 0.025 pCi/L (generally the MDA for these isotope analyses) to exclude ratios for very low results with high relative error.

Each table includes only those locations that collected samples that were analyzed for the referenced analyte. Maps are also included showing the spatial variation of the location-specific median value for the referenced parameter. Only locations that had four or more individual results are mapped. Since tritium was analyzed for only eight locations, no map is presented.

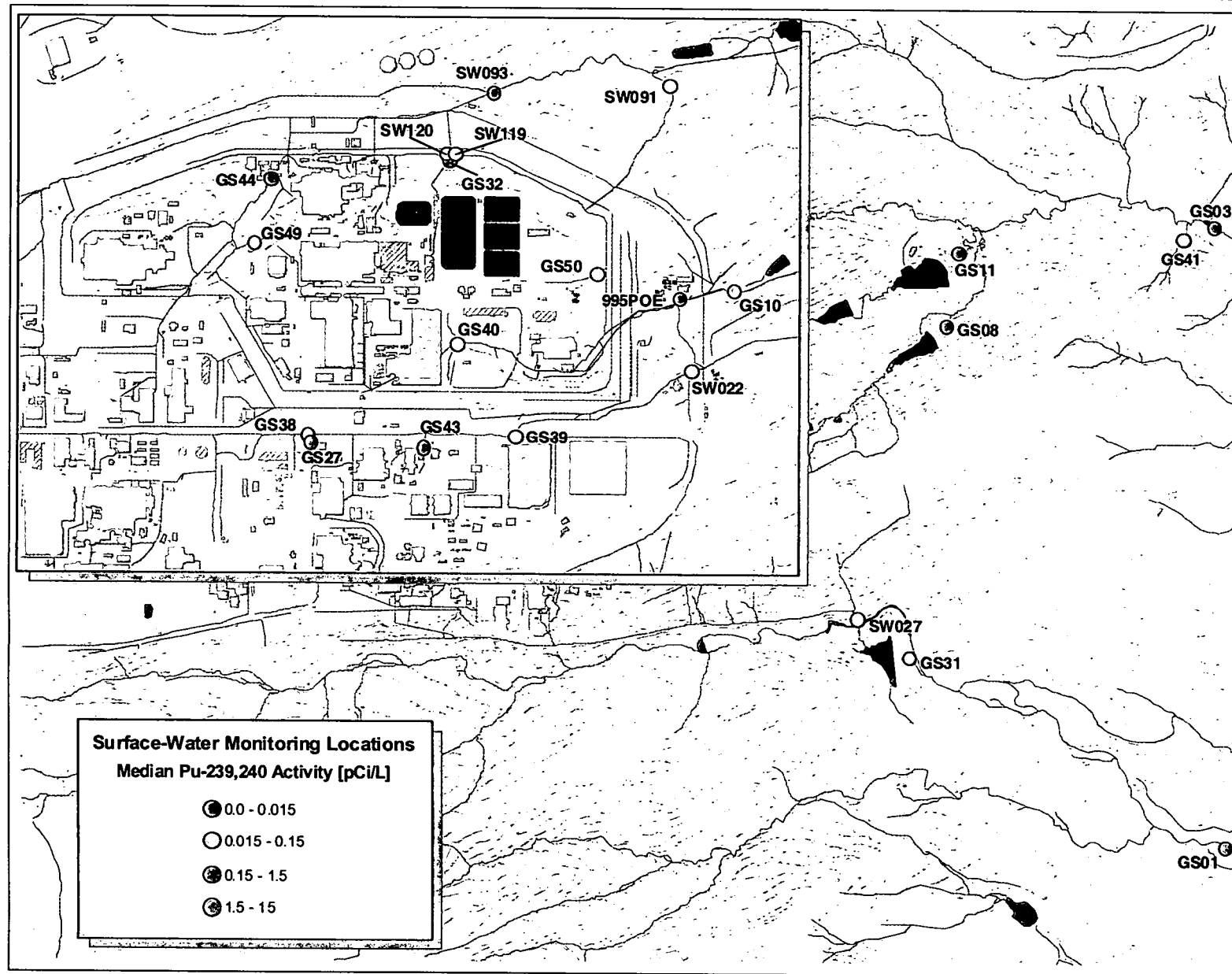
⁵ In this report, 'plutonium' or 'Pu' refers to Pu-239,-240 and 'americium' or 'Am' refers to Am-241.

Table 4-1 and Figure 4-1 show that median Pu activities for almost all locations outside the IA are well below the action level of 0.15 pCi/L⁶. Outside the IA, only GS42 had a median activity greater than 0.15 pCi/L (2 samples; median 1.09 pCi/L Pu). This activity is likely due to the proximity of the GS42 drainage area to the 903 Pad. Several locations within the IA showed median Pu activities greater than 0.15 pCi/L.

Table 4-1. Summary Statistics for Pu-239,240 Analytical Results in WY97-01.

Location	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]
GS01	104	0.003	0.011	0.024
GS03	160	0.007	0.022	0.220
GS08	61	0.006	0.017	0.864
GS10	166	0.054	0.194	2.270
GS11	71	0.002	0.012	0.070
GS27	54	1.675	5.905	64.3
GS31	17	0.016	0.081	0.348
GS32	41	0.960	4.820	11.5
GS38	39	0.064	0.140	0.307
GS39	39	0.068	0.177	0.825
GS40	46	0.016	0.046	0.085
GS41	6	0.020	0.025	0.026
GS42	2	1.090	1.132	1.150
GS43	14	0.006	0.025	0.075
GS44	14	0.015	0.033	0.055
GS49	6	0.026	0.043	0.079
GS50	4	0.122	0.212	0.225
SW022	53	0.089	0.509	9.490
SW027	42	0.022	0.115	1.030
SW055	1	NA	NA	3.160
SW091	15	0.062	0.222	0.958
SW093	181	0.007	0.044	1.060
SW119	5	0.074	0.177	0.300
SW120	13	0.096	0.384	1.160
995POE	12	0.000	0.006	0.020

⁶ The action levels noted in this section only apply to Points of Evaluation (995POE, GS10, SW027, and SW093; Section 12) compared to 30-day averages. The same numeric values are applied as standards only at Points of Compliance (GS01, GS03, GS08, GS11, and GS31; Section 13) compared to 30-day averages. Comparisons of standards and action levels to other locations are noted in this section for reference only. POEs and POCs are highlighted in bold in the tables.



Only locations with four or more results are mapped.

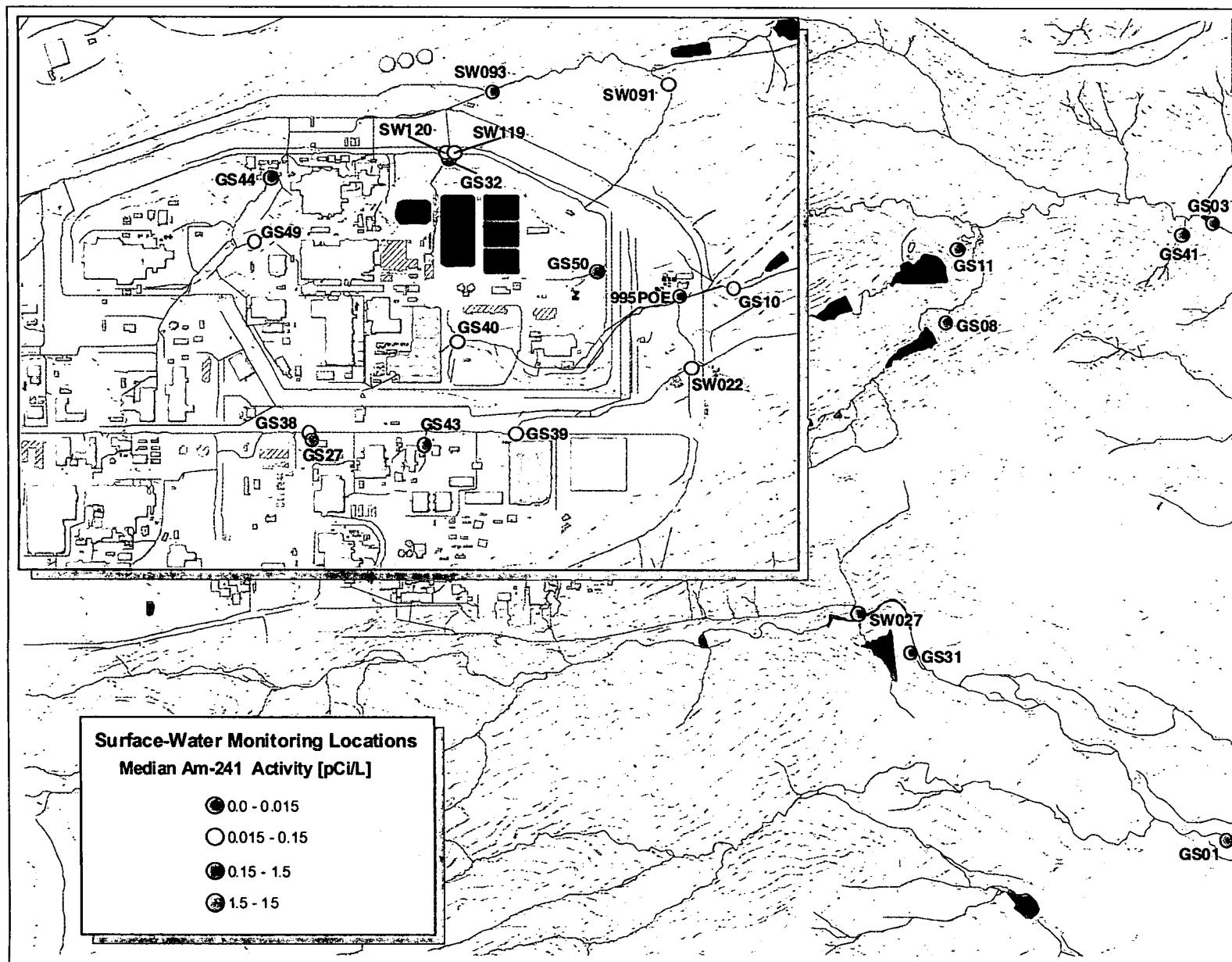
Figure 4-1. Map Showing Median Pu-239,240 Activities for WY97-01.

Table 4-2 and Figure 4-2 show that median Am activities for almost all locations outside the IA are well below the action level of 0.15 pCi/L.⁷ Outside the IA, only GS42 had a median activity greater than 0.15 pCi/L (2 samples; median 0.185 pCi/L Am). This activity is likely due to the proximity of the GS42 drainage area to the 903 Pad. Several locations within the IA showed median Am activities greater than 0.15 pCi/L.

Table 4-2. Summary Statistics for Am-241 Analytical Results in WY97-01.

Location	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]
GS01	103	0.002	0.008	0.039
GS03	161	0.005	0.019	0.059
GS08	61	0.006	0.015	0.275
GS10	163	0.057	0.163	8.385
GS11	71	0.003	0.009	0.047
GS27	53	0.373	1.390	14.8
GS31	17	0.010	0.025	0.116
GS32	41	0.689	3.120	4.060
GS38	39	0.018	0.038	0.077
GS39	39	0.022	0.049	0.160
GS40	46	0.031	0.068	0.140
GS41	6	0.008	0.017	0.019
GS42	2	0.185	0.195	0.200
GS43	14	0.005	0.011	0.018
GS44	14	0.014	0.027	0.064
GS49	6	0.016	0.040	0.050
GS50	4	0.159	0.324	0.442
SW022	54	0.023	0.107	1.760
SW027	42	0.008	0.026	0.177
SW055	1	NA	NA	0.557
SW091	15	0.051	0.236	0.686
SW093	179	0.008	0.034	0.628
SW119	5	0.104	0.225	0.384
SW120	13	0.050	0.150	0.336
995POE	12	0.002	0.006	0.025

⁷ The action levels noted in this section only apply to Points of Evaluation (995POE, GS10, SW027, and SW093; Section 12) compared to 30-day averages. The same numeric values are applied as standards only at Points of Compliance (GS01, GS03, GS08, GS11, and GS31; Section 13) compared to 30-day averages. Comparisons of standards and action levels to other locations are noted in this section for reference only. POEs and POCs are highlighted in bold in the tables.



Only locations with four or more results are mapped.

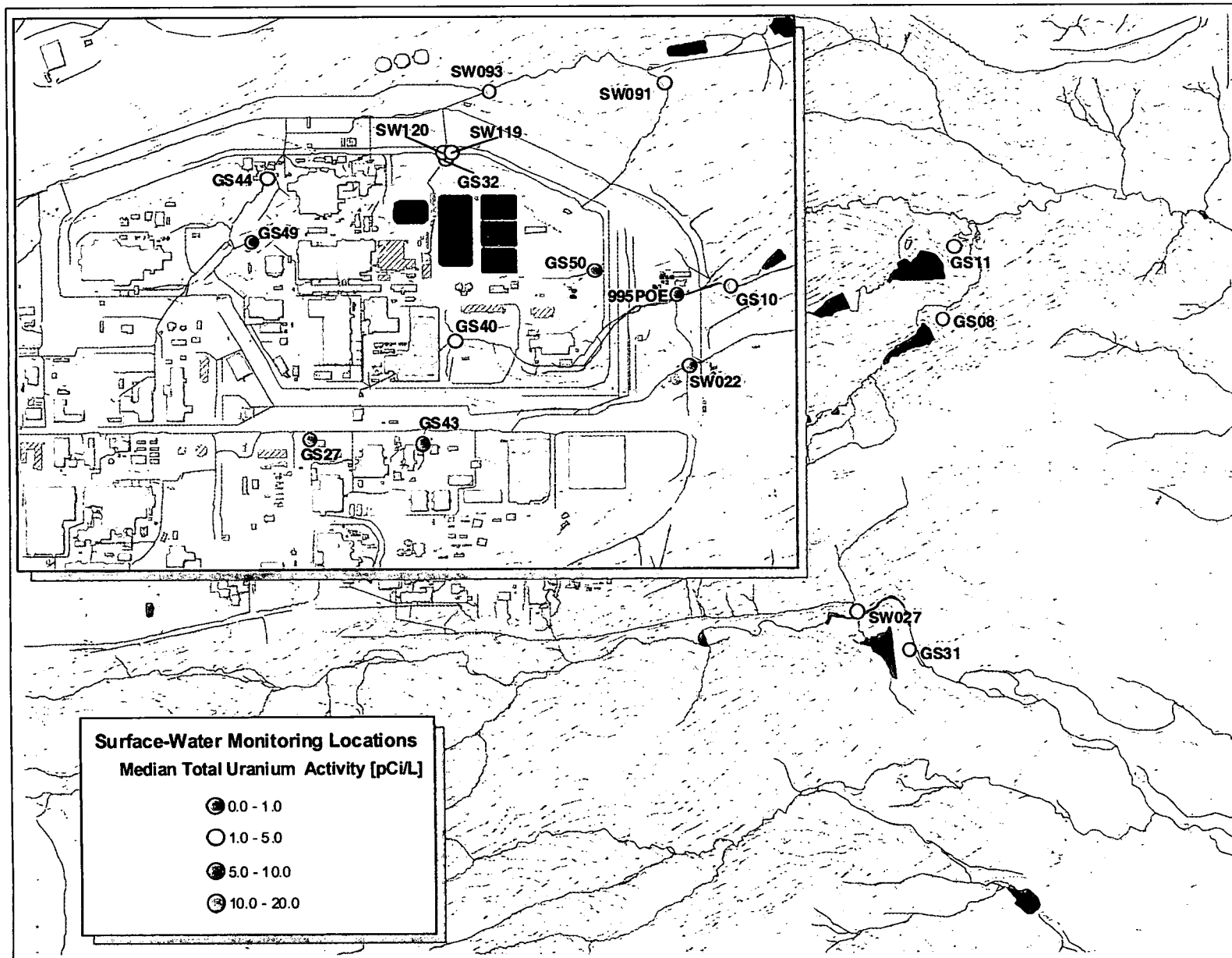
Figure 4-2. Map Showing Median Am-241 Activities for WY97-01.

Table 4-3 and Figure 4-3 show that median total uranium activities for all locations are below the action level of 10 pCi/L (11 pCi/L for Woman Creek).⁸ Locations GS43, GS32, and SW120 showed sample results greater than the action level. These activities are likely due to the proximity of GS43 to Building 886 and both GS32 and SW120 to the Solar Ponds. Similarly, the higher results measured at SW091, SW093, and SW119 are also likely due to their proximity to the Solar Ponds. GS44 measures footing drain flows from B771 and the measurements may be due to naturally occurring uranium in the intercepted groundwater. Baseflow for both GS10 and GS40 is sustained by footing drain flows from the 700 Area and the measurements may also be due to naturally occurring uranium in the intercepted groundwater.

Table 4-3. Summary Statistics for Total Uranium Analytical Results in WY97-01.

Location	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]
GS08	61	1.379	2.189	4.579
GS10	166	2.940	4.241	6.480
GS11	71	1.940	2.833	3.952
GS27	54	0.271	0.737	2.123
GS31	17	2.360	2.722	3.917
GS32	41	1.367	2.788	17.529
GS40	18	2.635	3.709	4.168
GS43	11	9.887	15.743	23.088
GS44	13	2.545	4.555	5.075
GS49	6	0.287	0.541	1.169
GS50	4	0.281	0.397	0.438
SW022	54	0.849	2.329	3.913
SW027	42	1.809	3.074	4.476
SW055	1	NA	NA	2.908
SW091	15	4.206	5.214	6.970
SW093	181	2.572	4.200	6.640
SW119	5	2.701	3.995	5.664
SW120	13	2.226	7.195	10.198
995POE	12	0.564	1.191	1.835

⁸ The action levels noted in this section only apply to Points of Evaluation (995POE, GS10, SW027, and SW093; Section 12) compared to 30-day averages. The same numeric values are applied as standards only at Points of Compliance (GS01, GS03, GS08, GS11, and GS31; Section 13) compared to 30-day averages. Comparisons of standards and action levels to other locations are noted in this section for reference only. POEs and POCs are highlighted in **bold** in the tables.



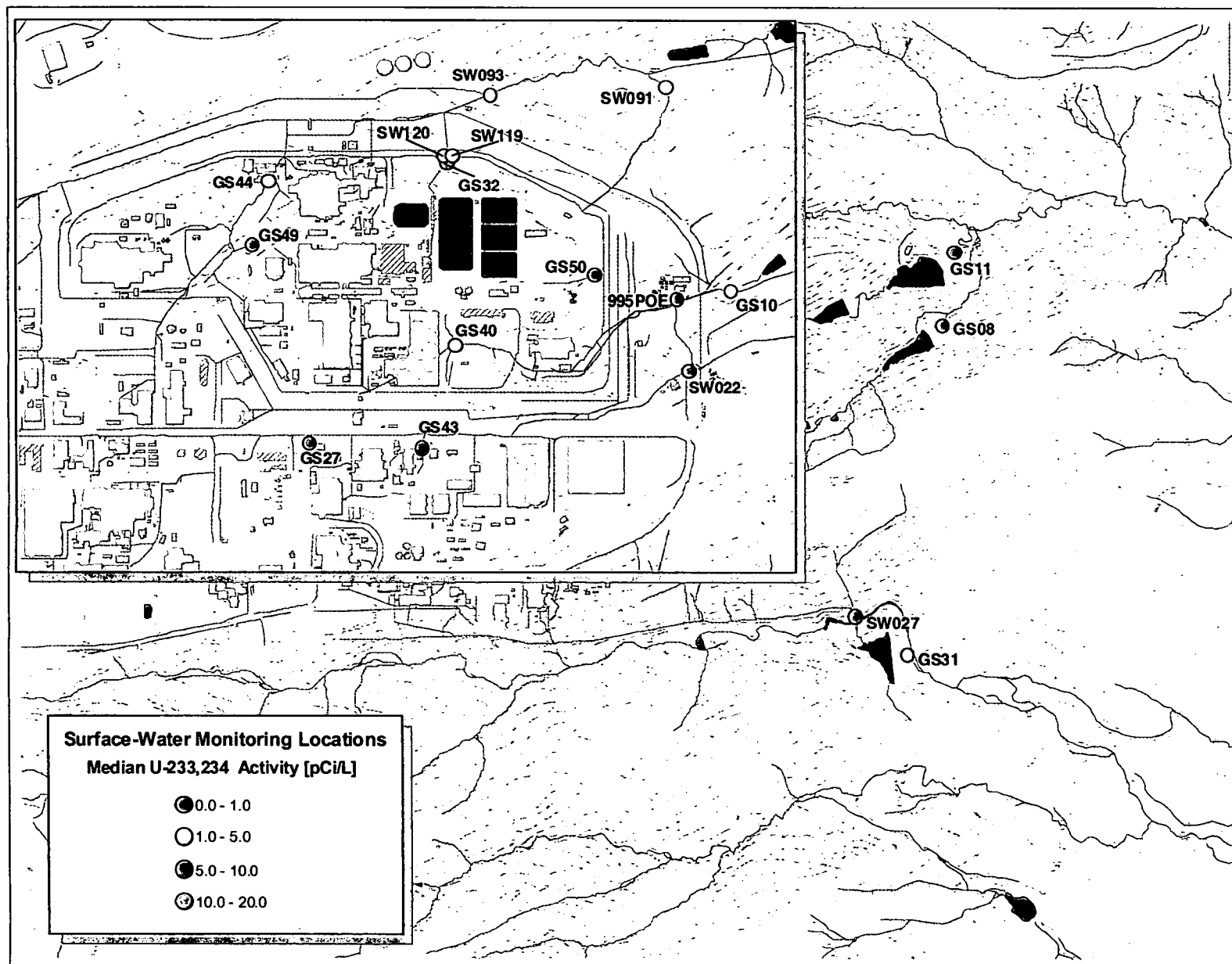
Only locations with four or more results are mapped.

Figure 4-3. Map Showing Median Total Uranium Activities for WY97-01.

Table 4-4 and Figure 4-4 show that the highest U-233,2434 activities were measured at GS43 and GS32. These activities are likely due to the proximity of GS43 and GS32 to Building 886 and the Solar Ponds, respectively. Similarly, the higher results measured at SW091, SW093, and SW120 are likely due to their proximity to the Solar Ponds.

Table 4-4. Summary Statistics for U-233,234 Analytical Results in WY97-01.

Location	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]
GS08	61	0.712	1.110	2.550
GS10	166	1.480	2.133	3.270
GS11	71	0.947	1.450	2.040
GS27	54	0.134	0.322	1.070
GS31	17	1.050	1.260	1.790
GS32	41	0.816	1.820	10.800
GS40	18	1.195	1.709	2.020
GS43	11	7.250	11.850	17.900
GS44	13	1.320	2.578	2.830
GS49	6	0.154	0.260	0.526
GS50	4	0.135	0.194	0.224
SW022	54	0.379	0.895	1.750
SW027	42	0.776	1.243	1.560
SW055	1	NA	NA	1.520
SW091	15	2.200	2.816	3.840
SW093	181	1.200	1.920	2.820
SW119	5	1.560	2.430	3.510
SW120	13	1.260	4.308	5.940
995POE	12	0.273	0.591	0.872



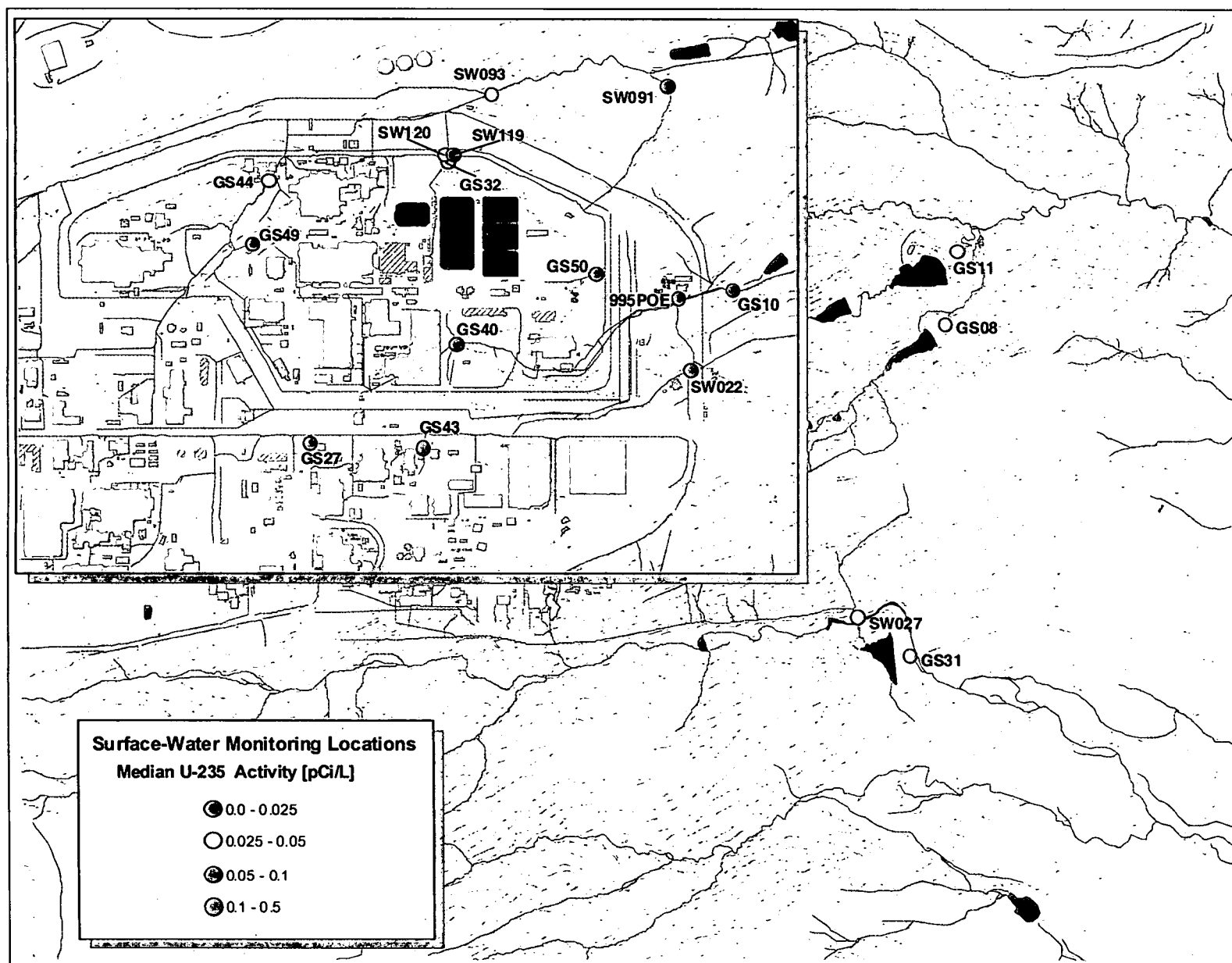
Only locations with four or more results are mapped.

Figure 4-4. Map Showing Median U-233,234 Activities for WY97-01.

Table 4-5 and Figure 4-5 show that the highest U-235 activities were measured at GS43 and GS32. These activities are likely due to the proximity of GS43 and GS32 to Building 886 and the Solar Ponds, respectively. Similarly, the higher results measured at SW091, SW093, and SW120 are likely due to their proximity to the Solar Ponds.

Table 4-5. Summary Statistics for U-235 Analytical Results in WY97-01.

Location	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]
GS08	61	0.028	0.051	0.165
GS10	166	0.056	0.097	0.150
GS11	71	0.043	0.068	0.107
GS27	54	0.006	0.023	0.116
GS31	17	0.043	0.070	0.107
GS32	41	0.045	0.093	0.319
GS40	18	0.060	0.077	0.094
GS43	11	0.265	0.466	0.593
GS44	13	0.038	0.114	0.139
GS49	6	0.005	0.021	0.050
GS50	4	0.004	0.011	0.015
SW022	54	0.021	0.066	0.187
SW027	42	0.028	0.058	0.080
SW055	1	NA	NA	0.028
SW091	15	0.090	0.133	0.190
SW093	181	0.046	0.091	0.150
SW119	5	0.051	0.082	0.114
SW120	13	0.028	0.189	0.258
995POE	12	0.018	0.022	0.038



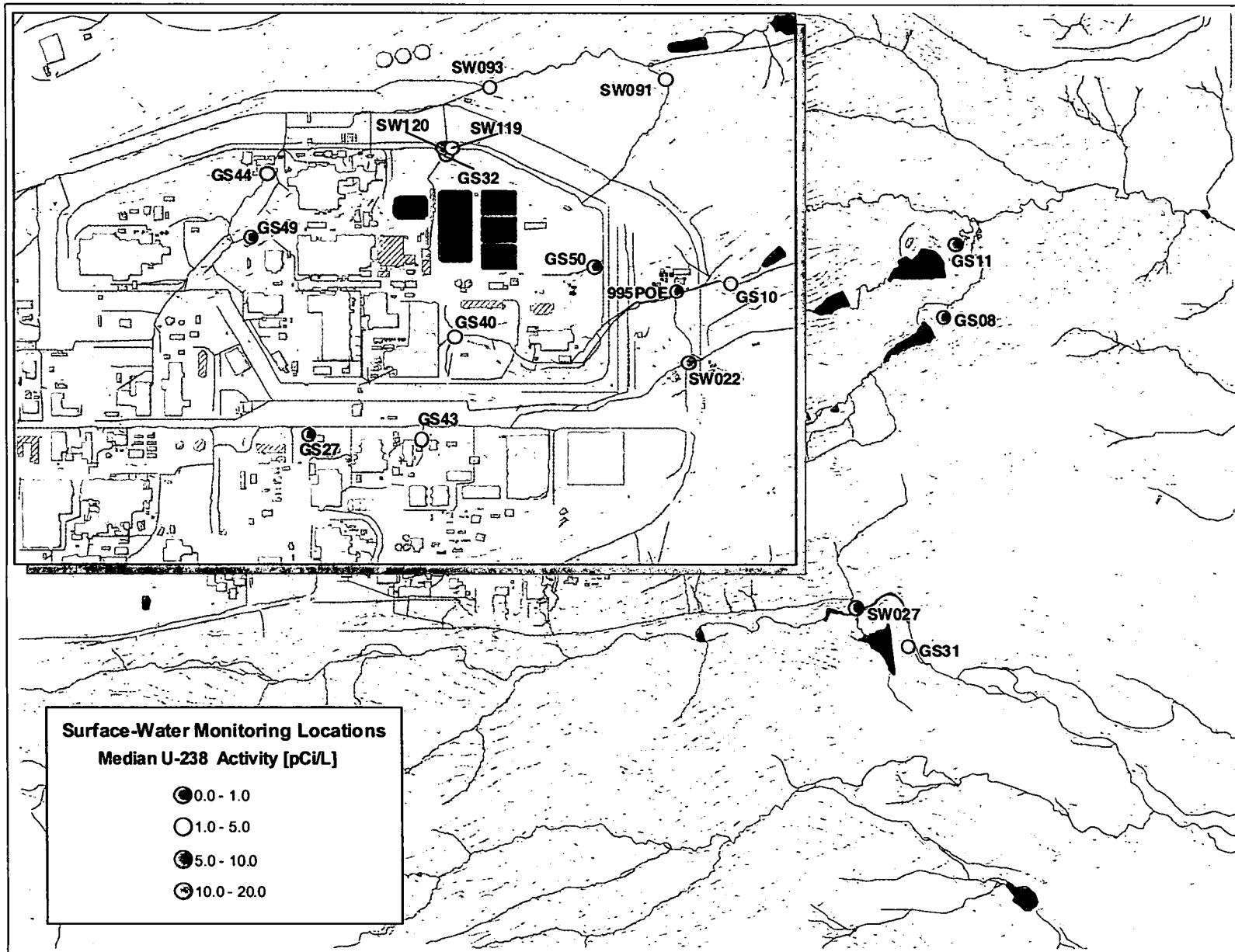
Only locations with four or more results are mapped.

Figure 4-5. Map Showing Median U-235 Activities for WY97-01.

Table 4-6 and Figure 4-6 show that the highest U-238 activities were measured at GS43 and GS32. These activities are likely due to the proximity of GS43 and GS32 to Building 886 and the Solar Ponds, respectively. Similarly, the higher results measured at SW091, SW093, and SW120 are likely due to their proximity to the Solar Ponds.

Table 4-6. Summary Statistics for U-238 Analytical Results in WY97-01.

Location	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]
GS08	61	0.666	1.020	1.920
GS10	166	1.405	1.990	3.080
GS11	71	0.969	1.390	1.880
GS27	54	0.131	0.360	1.050
GS31	17	1.200	1.418	2.020
GS32	41	0.594	1.220	6.410
GS40	18	1.405	2.010	2.090
GS43	11	2.360	3.400	4.650
GS44	13	1.100	1.996	2.110
GS49	6	0.125	0.265	0.593
GS50	4	0.137	0.198	0.211
SW022	54	0.426	1.307	2.601
SW027	42	0.979	1.616	2.910
SW055	1	NA	NA	1.360
SW091	15	1.770	2.535	2.950
SW093	181	1.300	2.270	3.960
SW119	5	1.080	1.494	2.040
SW120	13	0.939	2.778	4.000
995POE	12	0.273	0.562	0.946



Only locations with four or more results are mapped.

Figure 4-6. Map Showing Median U-238 Activities for WY97-01.

Table 4-7. Summary Statistics for Tritium Analytical Results in WY97-01.

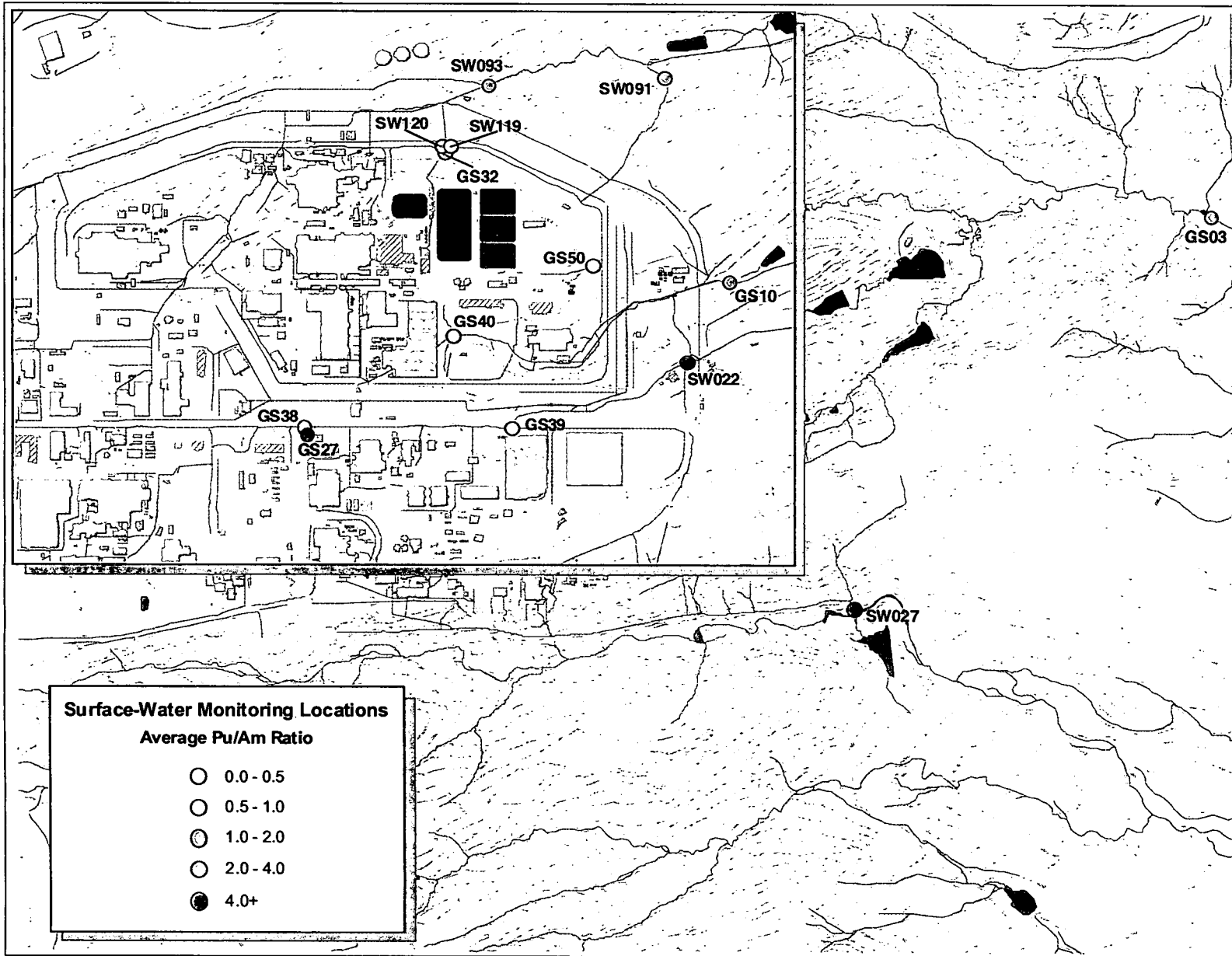
Location	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]
GS01	100	69	222	480
GS03	155	65	240	490
GS32	1	NA	NA	82
GS40	16	0	67	220
GS44	14	0	36	100
GS49	6	8	56	77
SW120	10	63	210	258
995POE	12	0	0	94

Table 4-8 lists the average Pu/Am activity ratios for all locations where samples are analyzed for Pu and Am. A ratio greater than one indicates Pu activity in excess of Am activity. Conversely, a ratio less than one indicates Am activity in excess of Pu activity. Generally, Pu activities are greater than Am activities in surface water at the Site. However, several locations in South Walnut Creek show ratios less than one (Figure 4-7). The significance of these ratios has been extensively evaluated in the various Source Evaluation reports for GS10 (see Section 6).

Table 4-8. Average Pu/Am Ratios for Analytical Results in WY97-01.

Location	Samples [N] ^a	Average Pu/Am Ratio
GS01	1	0.63
GS03	15	1.98
GS08	3	8.39
GS10	124	1.16
GS11	*	*
GS27	52	4.33
GS31	2	3.83
GS32	40	1.60
GS38	24	3.74
GS39	25	3.50
GS40	23	0.85
GS41	1	1.06
GS42	2	5.92
GS43	2	2.98
GS44	3	1.30
GS49	3	1.20
GS50	4	0.53
SW022	33	4.47
SW027	10	4.42
SW055	1	5.67
SW091	12	1.22
SW093	51	1.84
SW119	5	0.69
SW120	9	2.68
995POE	*	*

Note: ^a - Number of samples where both Pu and Am were greater than 0.015 pCi/L.
* - No results greater than 0.015 pCi/L



Only locations with four or more results are mapped.

Figure 4-7. Map Showing Average Pu/Am Ratios for WY97-01.

Naturally occurring uranium generally shows a U-233,234/U-238 activity ratio of approximately one. The U-233,234/U-238 activity ratios at Site surface-water monitoring locations may be used as an indication of the existence of uranium with 'unnatural' ratios. Although this evaluation does not deal systematically with analytical counting errors, Table 4-9 and Figure 4-8 are presented here for reference.

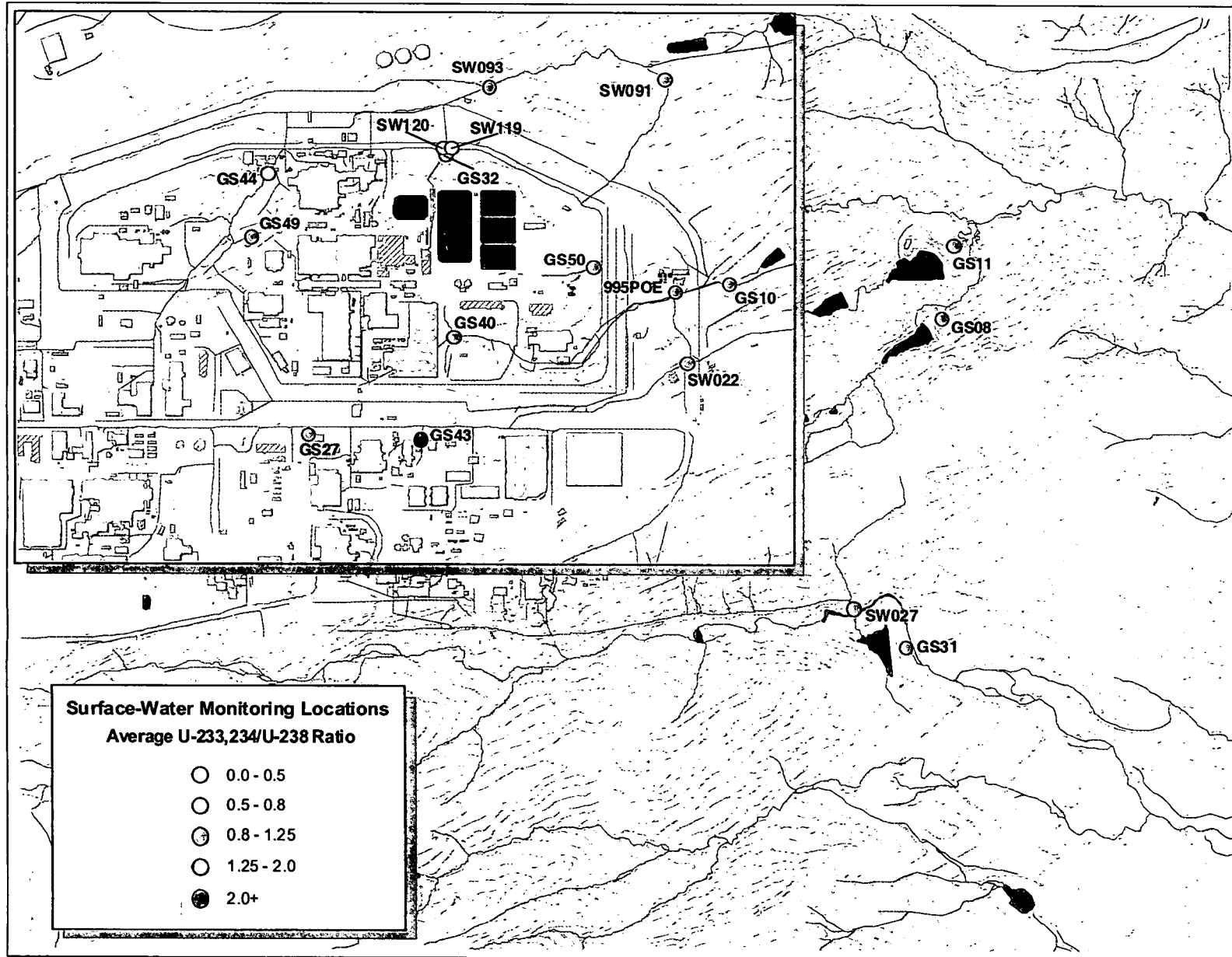
Location GS43 shows an average ratio significantly greater than one, indicating the possible existence of uranium modified by Site activities. The ratios at this location are likely due to the proximity of GS43 to Building 886. Similarly, GS32, SW119, and SW120 show ratios somewhat greater than one, likely due to the proximity of these locations to the Solar Ponds.

In January 2002, samples were collected from several surface-water locations and sent to Los Alamos National Laboratory (LANL) for analysis for uranium isotopes U234, U235, U236 & U238 by high resolution Inductively-Coupled Plasma Mass Spectrometry (ICP-MS). The intent of these analyses was an attempt to determine if the uranium in these samples was depleted or enriched by Site operations. A summary of this study is given in Section 7: Ad Hoc Monitoring.

Table 4-9. Average U-233,234 / U-238 Ratios for Analytical Results in WY97-01.

Location	Samples [N] ^a	Average U-233,234 / U-238 Ratio
GS08	61	1.10
GS10	166	1.06
GS11	71	1.00
GS27	47	1.04
GS31	17	0.88
GS32	40	1.49
GS40	18	0.83
GS43	11	3.37
GS44	13	1.28
GS49	6	1.06
GS50	4	1.06
SW022	53	0.88
SW027	42	0.81
SW055	1	1.12
SW091	15	1.20
SW093	181	0.91
SW119	5	1.50
SW120	13	1.43
995POE	12	0.96

Note: ^a - Number of samples where both U-233,234 and U-238 were greater than 0.025 pCi/L.



Only locations with four or more results are mapped.

Figure 4-8. Map Showing Average U-233,234 / U-238 Ratios for WY97-01.

4.2 POE METALS

The following summaries include all results that were not rejected through the verification/validation process. When an undetect is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

Table 4-10. Summary Statistics for POE Metals Results from GS10 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]
Total Be	163	44.2%	0.12	0.60	2.50
Dissolved Cd	154	49.4%	0.08	0.18	0.62
Total Cr	164	23.2%	2.08	5.68	23.20
Dissolved Ag	154	85.7%	0.11	0.21	1.10

Table 4-11. Summary Statistics for POE Metals Results from SW027 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]
Total Be	41	61.0%	0.110	0.69	0.75
Dissolved Cd	41	58.5%	0.050	0.16	0.70
Total Cr	41	14.6%	1.400	2.40	9.60
Dissolved Ag	41	85.4%	0.125	0.24	0.72

Table 4-12. Summary Statistics for POE Metals Results from SW093 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]
Total Be	180	48.9%	0.11	0.50	1.50
Dissolved Cd	173	65.9%	0.05	0.17	2.20
Total Cr	179	27.4%	1.70	4.60	34.5
Dissolved Ag	170	86.5%	0.11	0.18	1.00

5. LOADING ANALYSIS

This section provides a summary of actinide loads specifically for RFCA POEs and POCs. These locations collect continuous flow paced composite samples for laboratory analysis. The nature of the continuous sampling during all flow conditions allows for more accurate load estimations compared to storm-event sampling. The method for load estimation (in pCi) is given in Appendix B1: Data Evaluation Methods. The total pCi value is then converted to μg using the conversion factors in Table 5-1.⁹

Loads for other locations (Source Location monitoring) are included in Section 6.

Table 5-1. Activity to Mass Conversion Factors for Pu, Am, and U Isotopes.

Analyte	Mass/Activity (g/Ci)
Pu-239,240	14.085
Am-241	0.292
U-233,234	1.6 E+02
U-235	4.63 E+05
U-238	2.98 E+06

The Pu-239,240 conversion factor was derived from Table 2.7.2-2 in the April 1980 *Final Environmental Impact Statement (Final Statement to ERDA 1545-D)*, Rocky Flats Plant Site.

The conversion factors for Am-241, U-233,234, U-235, and U-238 were taken from the *U.S. Code of Federal Regulations, Title 40, Chapter I, Part 302.4, Appendix B, October 7, 2000*.¹⁰

5.1 SITEWIDE

This section summarizes the calculated offsite Pu and Am loads from Walnut and Woman Creeks. The following points are noted:

- Walnut Creek accounts for 78% and 76% of the Pu (Figure 5-4) and Am (Figure 5-5) loads, respectively, from the Site. The fact that Walnut Creek accounts for 61% of the combined Walnut and Woman Creek flow volumes (Section 3.2.1) indicates that the activities in Walnut Creek are somewhat higher than Woman Creek.

Table 5-2. Offsite Pu and Am Loads from Walnut and Woman Creeks: WY97-01.

Water Year	Pu-239,-240 (μg)			Am-241 (μg)		
	Walnut Creek	Woman Creek	Site Total	Walnut Creek	Woman Creek	Site Total
1997	254.7	47.8	302.5	2.60	0.49	3.09
1998	181.3	59.1	240.4	2.84	1.01	3.84
1999	148.9	56.1	205.0	2.06	0.77	2.83
2000	23.7	6.6	30.3	0.75	0.18	0.93
2001	59.0	23.7	82.7	0.65	0.30	0.96
Total	667.6	193.3	860.9	8.89	2.75	11.64

Note: During WY97, flows from Woman Creek were routinely diverted to Mower Ditch for subsequent monitoring at GS02 (Figure 3-1). Therefore, the load calculated for Woman Creek at Indiana Street (GS01) includes the water that was measured at GS02. The estimated load diverted to GS02 is calculated by multiplying the WY97 volume-weighted activities at GS01 by the streamflow volume measured at GS02, and converting for units. This diverted load is then added to the calculated load at GS01 to obtain the total WY97 load at GS01. For subsequent water years, the Mower diversion structure has been upgraded and configured to prevent Woman Creek flows from entering the Mower Ditch.

⁹ In the following tables and plots, values are rounded for clarity.

¹⁰ The U-234 conversion factor was used to represent U-233,234 due to the small relative abundance of U-233.

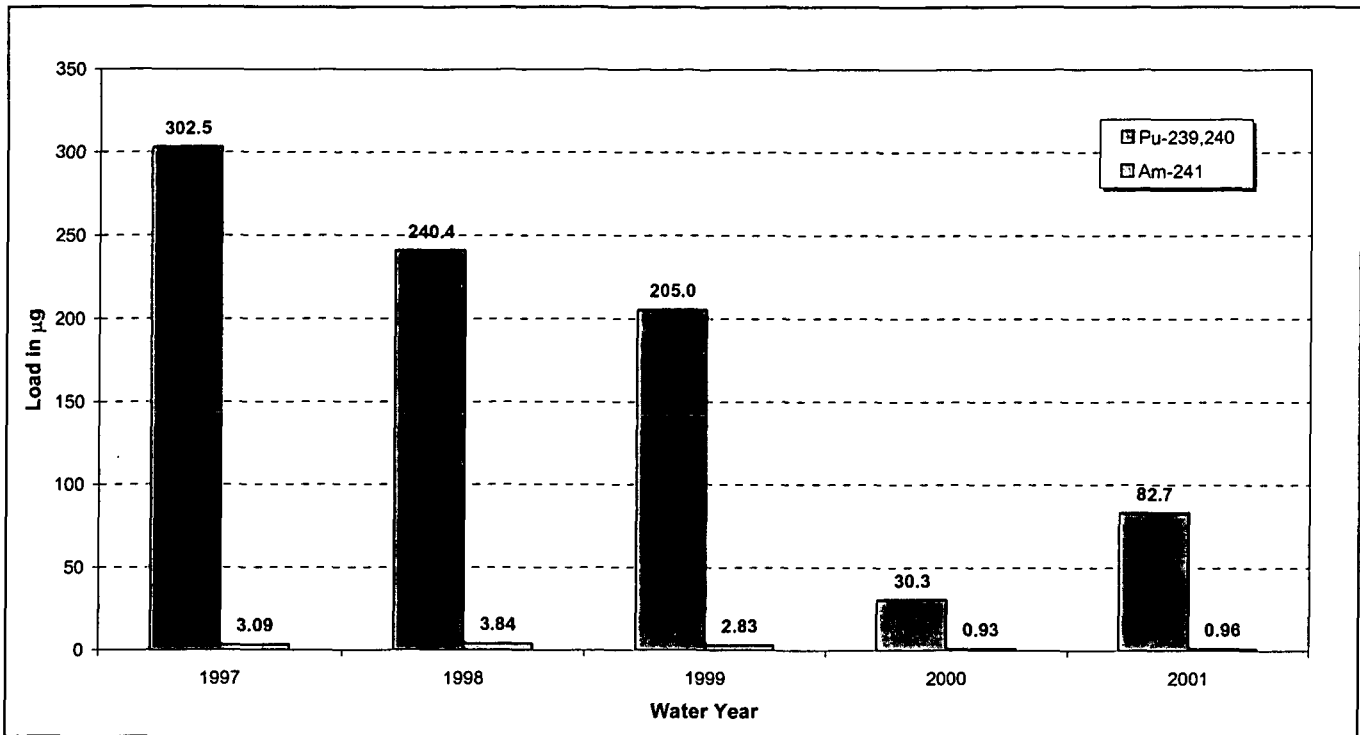


Figure 5-1. Combined Annual Pu and Am Loads from Walnut and Woman Creeks: WY97-01.

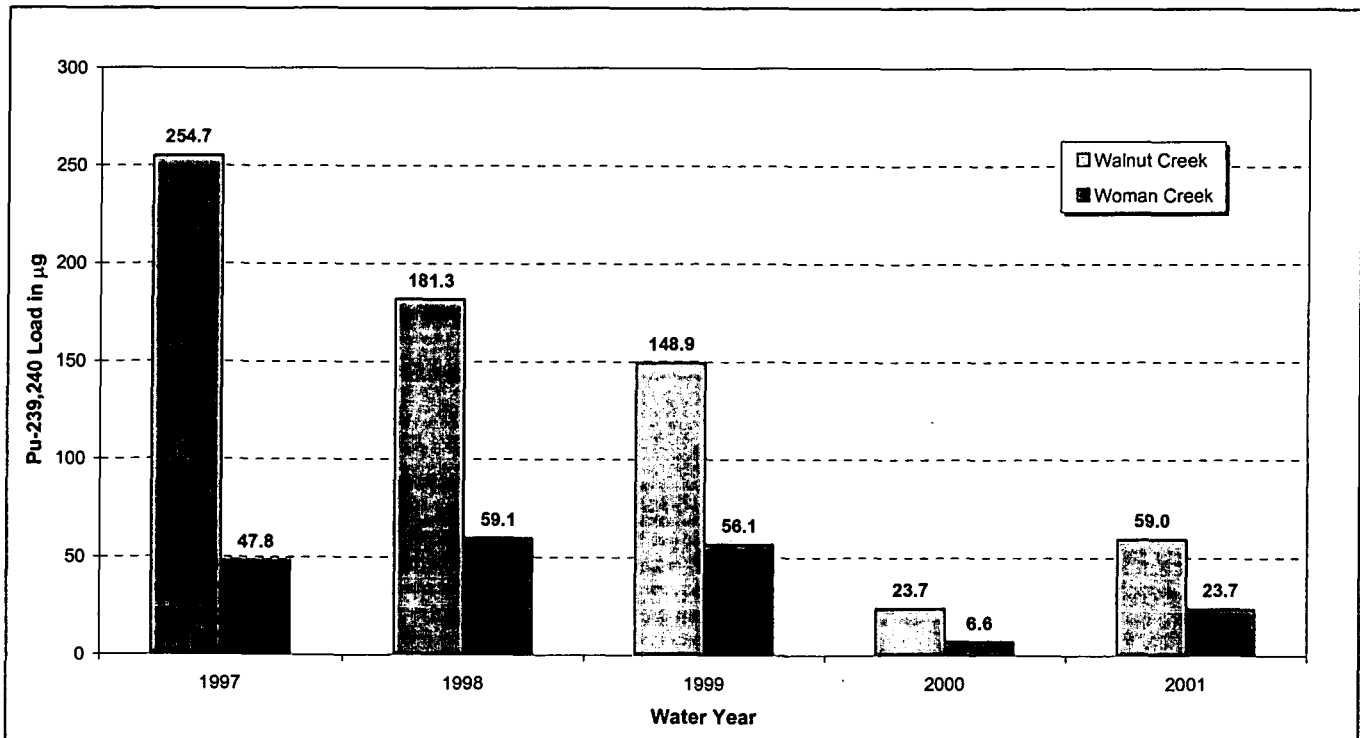


Figure 5-2. Annual Pu Loads from Walnut and Woman Creeks: WY97-01.

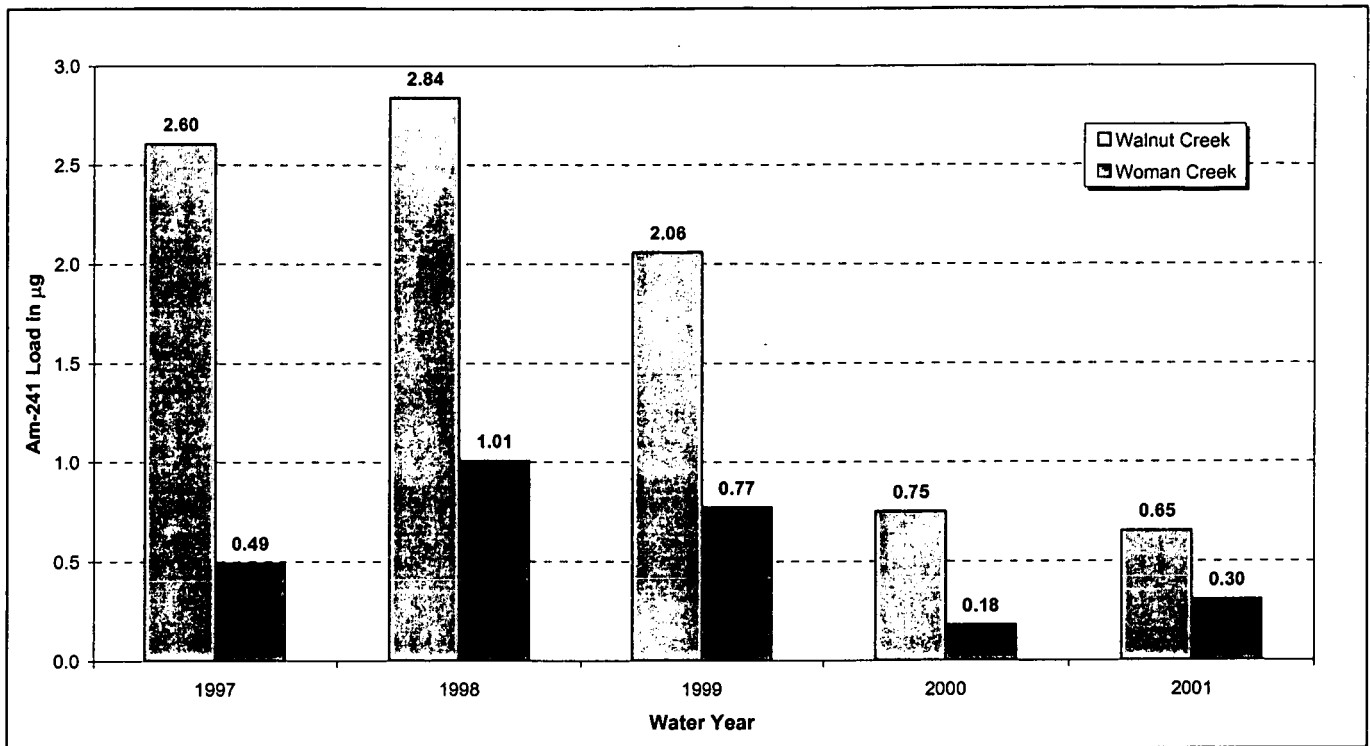


Figure 5-3. Annual Am Loads from Walnut and Woman Creeks: WY97-01.

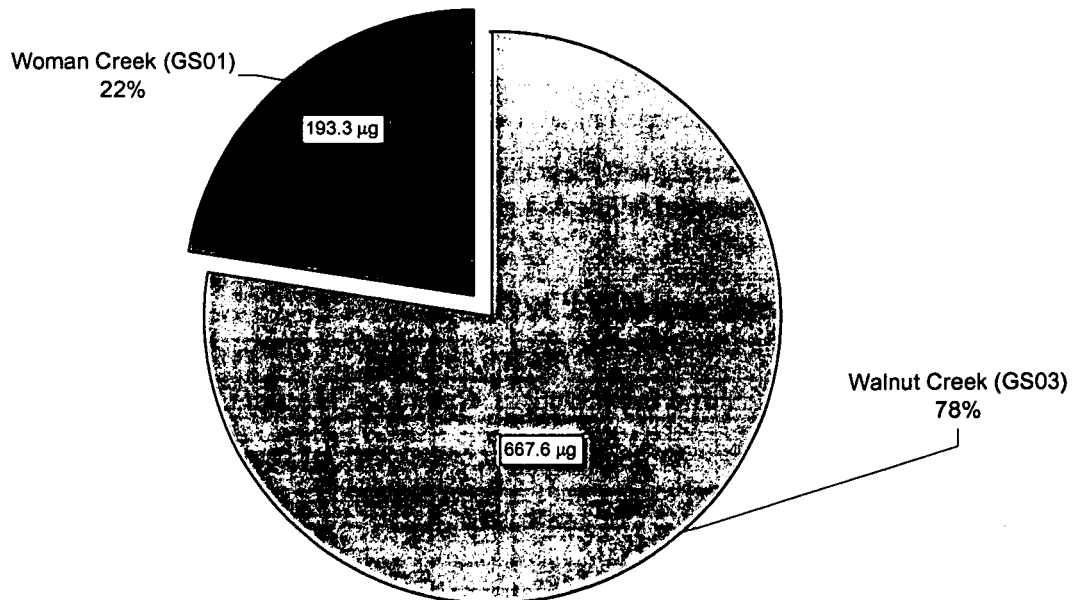


Figure 5-4. Relative Pu Load Totals from Walnut and Woman Creeks: WY97-01.

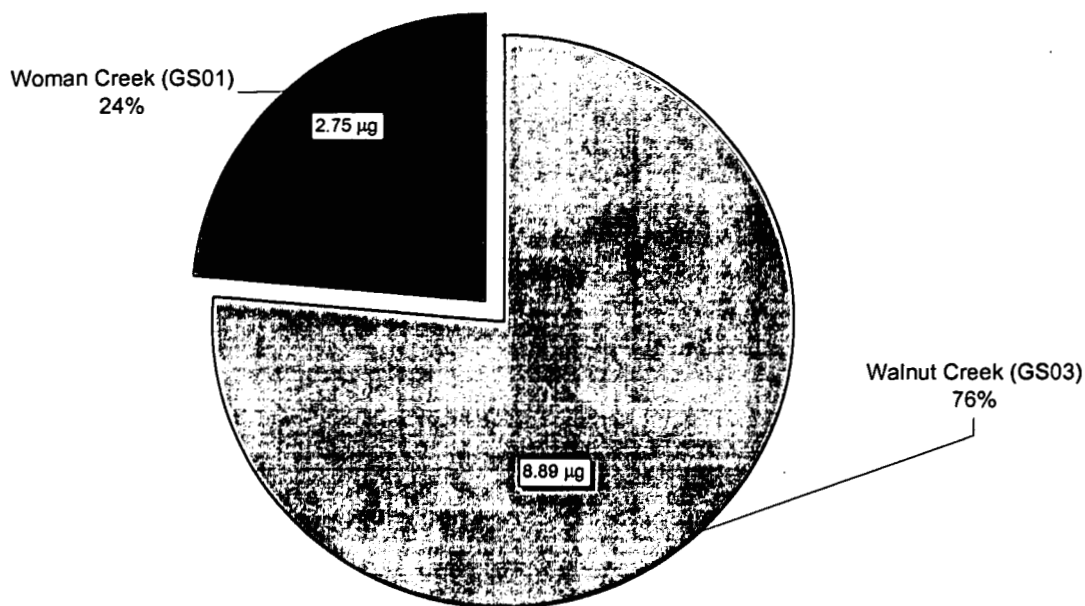


Figure 5-5. Relative Am Load Totals from Walnut and Woman Creeks: WY97-01.

5.2 WALNUT CREEK (POC GS03)

This section summarizes the calculated Pu and Am loads in Walnut Creek at GS03 (Walnut and Indiana St.), GS08 (Pond B-5), and GS11 (Pond A-4). The following points are noted:

- Annual Pu and Am loads generally vary by up to an order of magnitude year-to-year (Figure 5-7 and Figure 5-8).
- Loads from B-5 are significantly greater than loads from A-4 (Table 5-3).
- Total Pu loads from A-4 and B-5 are marginally greater than the loads at GS03 (Figure 5-9), indicating a small loss of load to the Walnut Cr. streambed below A-4 and B-5.
- Total Am loads from A-4 and B-5 are marginally less than the loads at GS03 (Figure 5-10), indicating a small gain of load from the Walnut Cr. streambed below A-4 and B-5.

Table 5-3. Pu Loads at GS03, GS08, and GS11: WY97-01.

Water Year	Pu-239,-240 (µg)			
	Pond A-4 [GS11]	Pond B-5 [GS08]	Walnut Cr. Terminal Ponds	POC GS03
1997	46.0	11.8	57.9	254.7
1998	30.7	22.4	53.1	181.3
1999	27.0	255.9	283.0	148.9
2000	27.9	245.3	273.2	23.7
2001	5.3	32.0	37.3	59.0
Total	136.9	567.5	704.4	667.6

Table 5-4. Am Loads at GS03, GS08, and GS11: WY97-01.

Water Year	Am-241 (µg)			
	Pond A-4	Pond B-5	Terminal Ponds	POC GS03
1997	0.52	0.28	0.80	2.60
1998	1.33	0.40	1.73	2.84
1999	0.35	1.73	2.08	2.06
2000	0.02	3.16	3.18	0.75
2001	0.11	0.46	0.57	0.65
Total	2.33	6.03	8.36	8.89

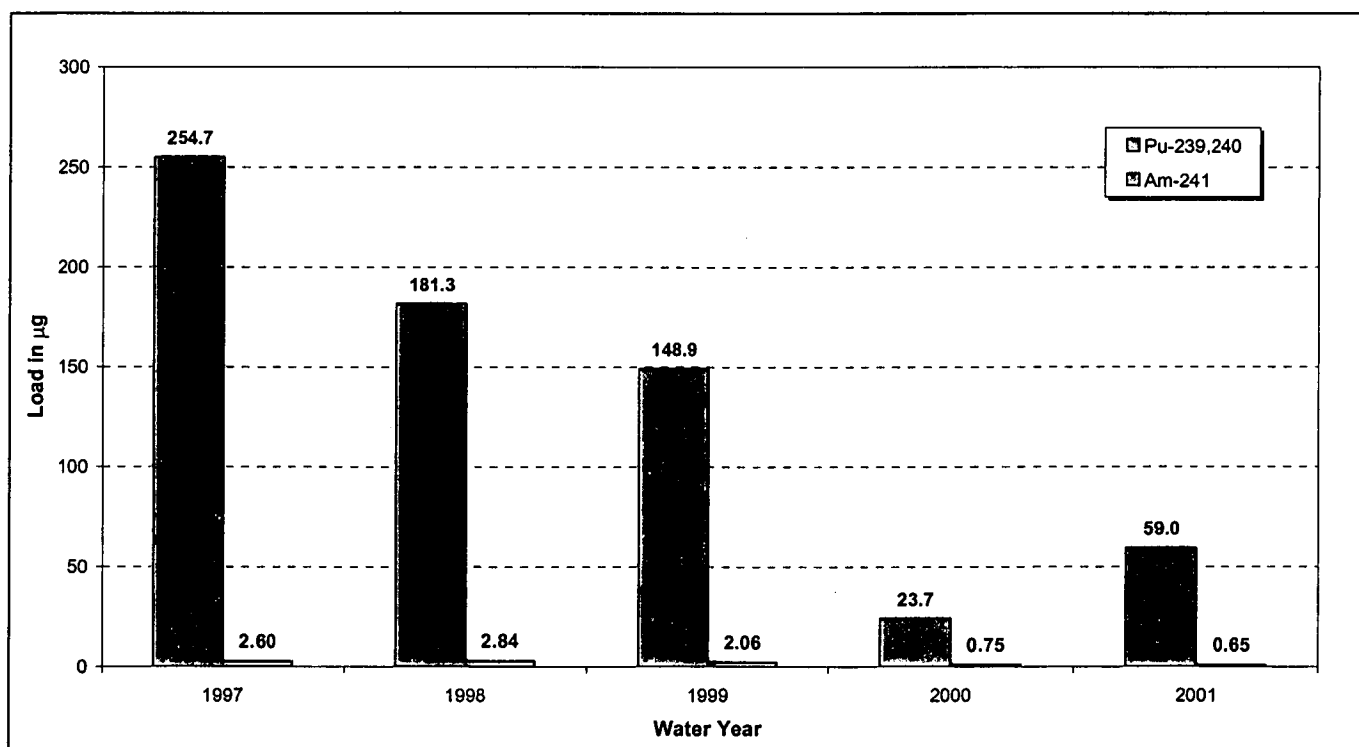


Figure 5-6. Annual Pu and Am Loads at GS03: WY97-01.

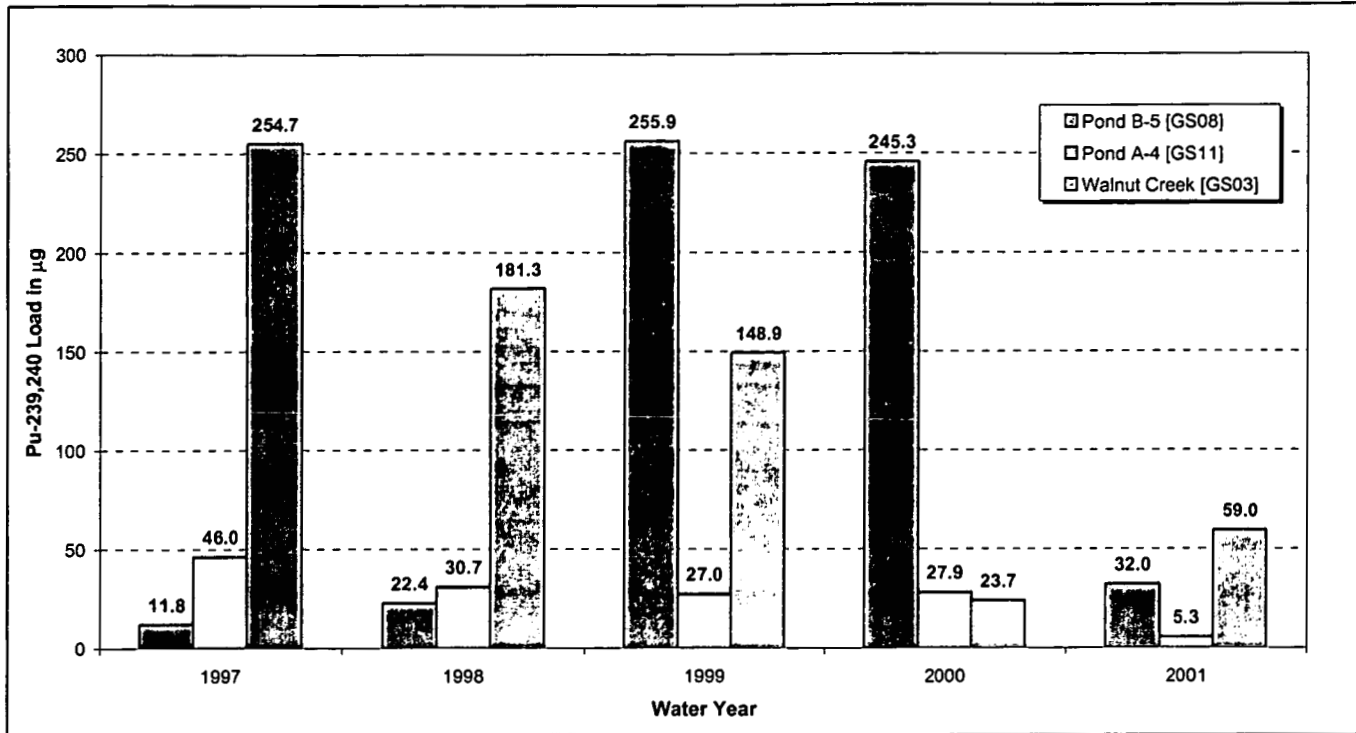


Figure 5-7. Annual Pu Loads at GS03, GS08, and GS11: WY97-01.

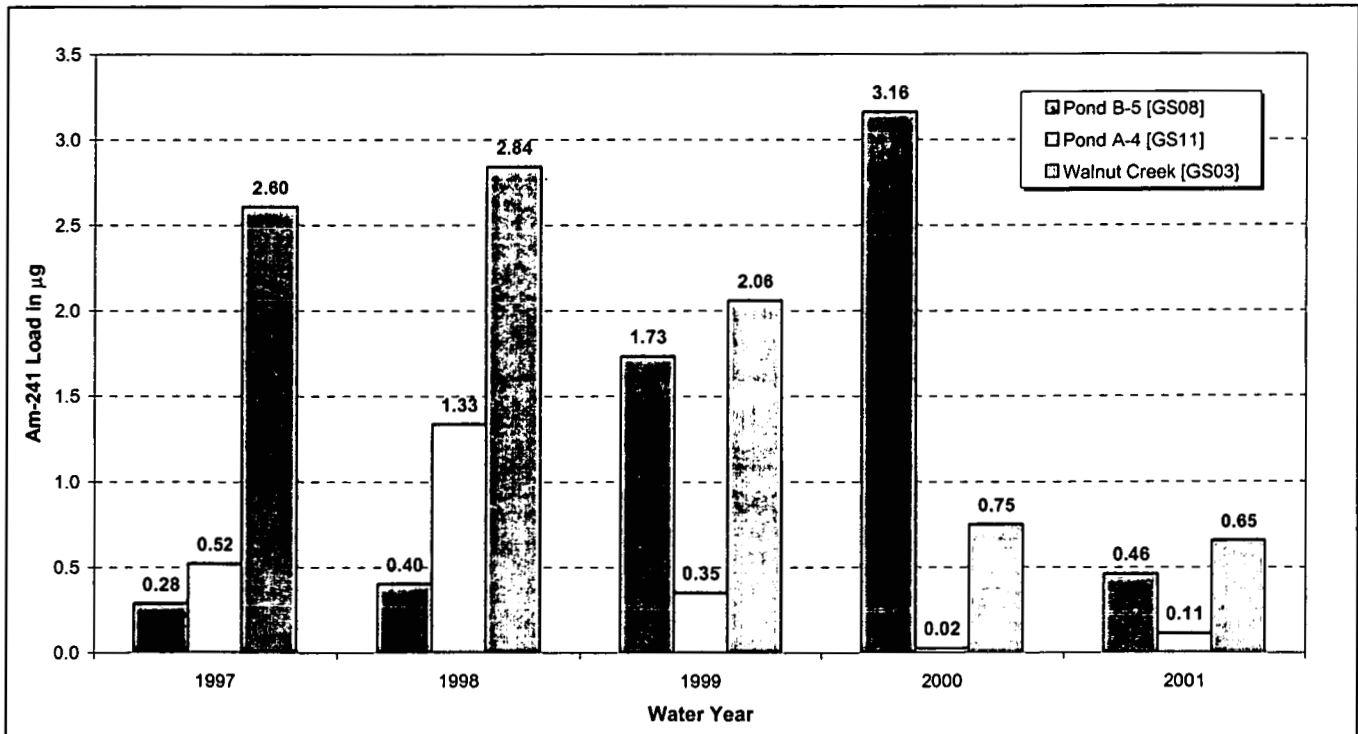


Figure 5-8. Annual Am Loads at GS03, GS08, and GS11: WY97-01.

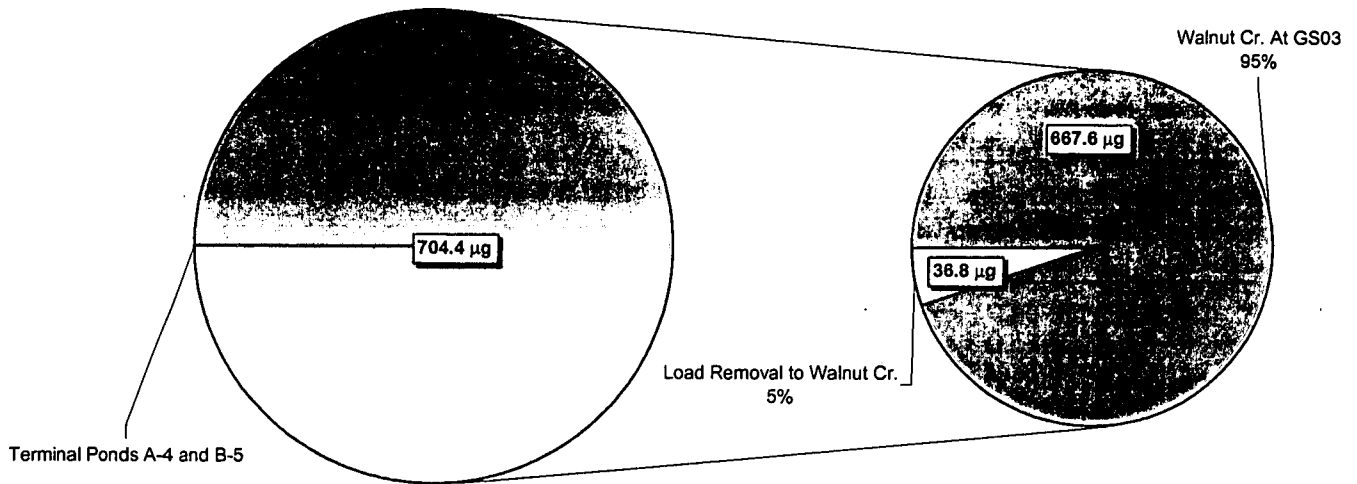


Figure 5-9. Relative Pu Load Totals at GS03, GS08, and GS11: WY97-01.

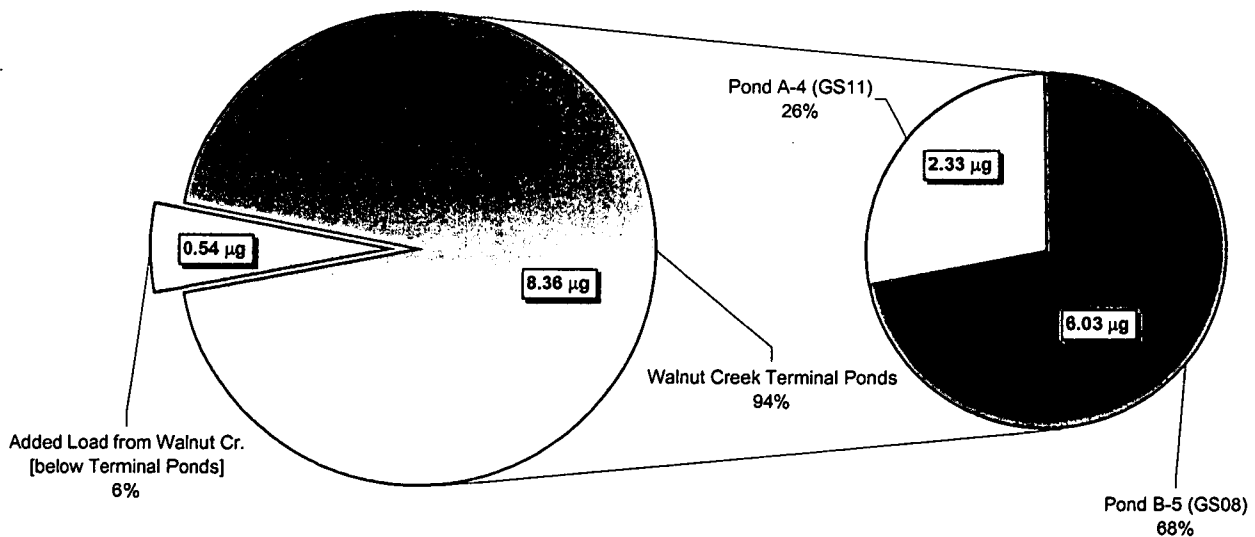


Figure 5-10. Relative Am Load Totals at GS03, GS08, and GS11: WY97-01.

5.3 WOMAN CREEK (POC GS01)

This section summarizes the calculated Pu and Am loads in Woman Creek at GS01 (Woman and Indiana St.) and GS31 (Pond C-2). The following points are noted:

- Annual Pu and Am loads generally vary by up to an order of magnitude year-to-year (Figure 5-12 and Figure 5-13).
- Total Pu loads from C-2 are significantly less than the loads at GS01 (Figure 5-14), indicating a significant gain of load from the Woman Cr. drainage.
- Total Am loads from C-2 are significantly less than the loads at GS01 (Figure 5-15), indicating a significant gain of load from the Woman Cr. drainage.

Table 5-5. Pu and Am Loads at GS01 and GS31: WY97-01.

Water Year	Pu-239,-240 (μg)		Am-241 (μg)	
	Pond C-2 [GS31]	POC GS01	Pond C-2 [GS31]	POC GS01
1997	6.8	47.8	0.04	0.49
1998	12.1	59.1	0.40	1.01
1999	26.9	56.1	0.13	0.77
2000	0.0; No C-2 Discharge	6.6	0.00; No C-2 Discharge	0.18
2001	11.0	23.7	0.14	0.30
Total	56.8	193.3	0.71	2.75

Note: During WY97, flows from Woman Creek were routinely diverted to Mower Ditch for subsequent monitoring at GS02 (Figure 3-1). Therefore, the load calculated for Woman Creek at Indiana Street (GS01) includes the water that was measured at GS02. The estimated load diverted to GS02 is calculated by multiplying the WY97 volume-weighted activities at GS01 by the streamflow volume measured at GS02, and converting for units. This diverted load is then added to the calculated load at GS01 to obtain the total WY97 load at GS01. For subsequent water years, the Mower diversion structure has been upgraded and configured to prevent Woman Creek flows from entering the Mower Ditch.

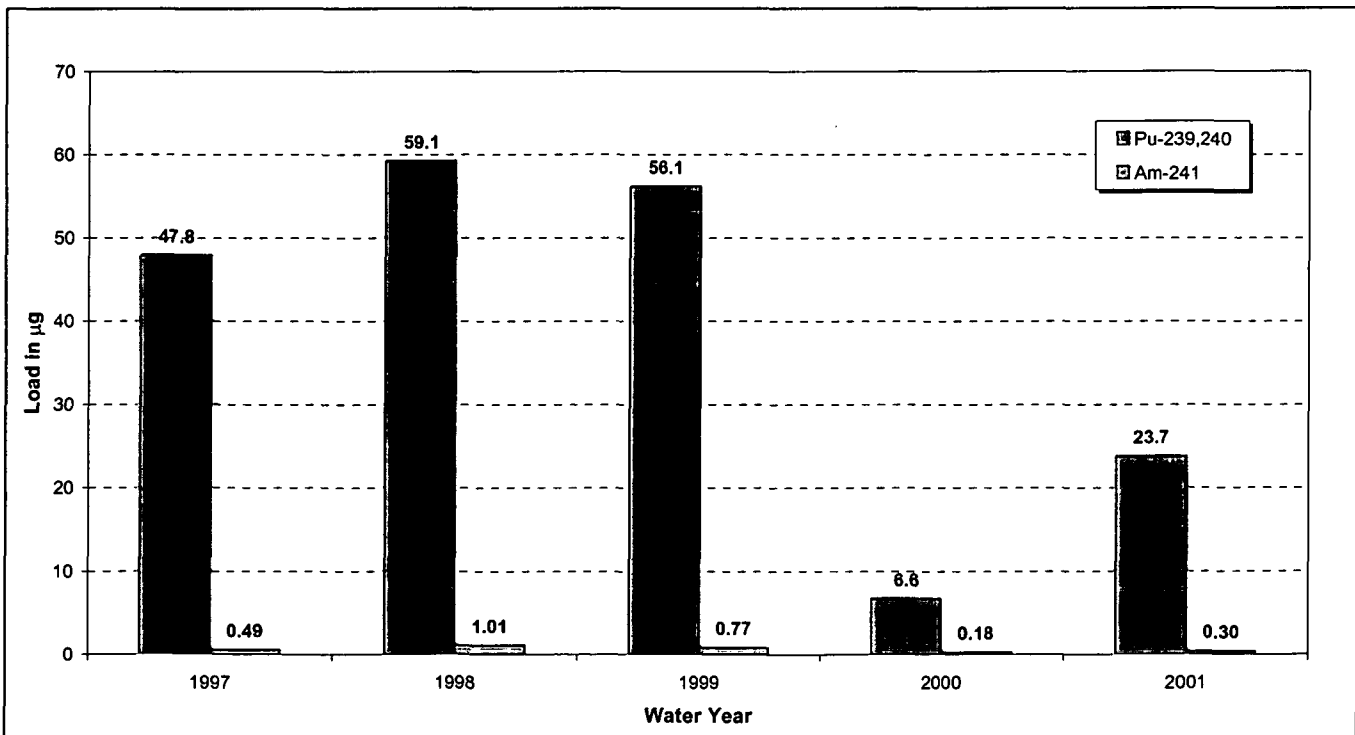


Figure 5-11. Annual Pu and Am Loads at GS01: WY97-01.

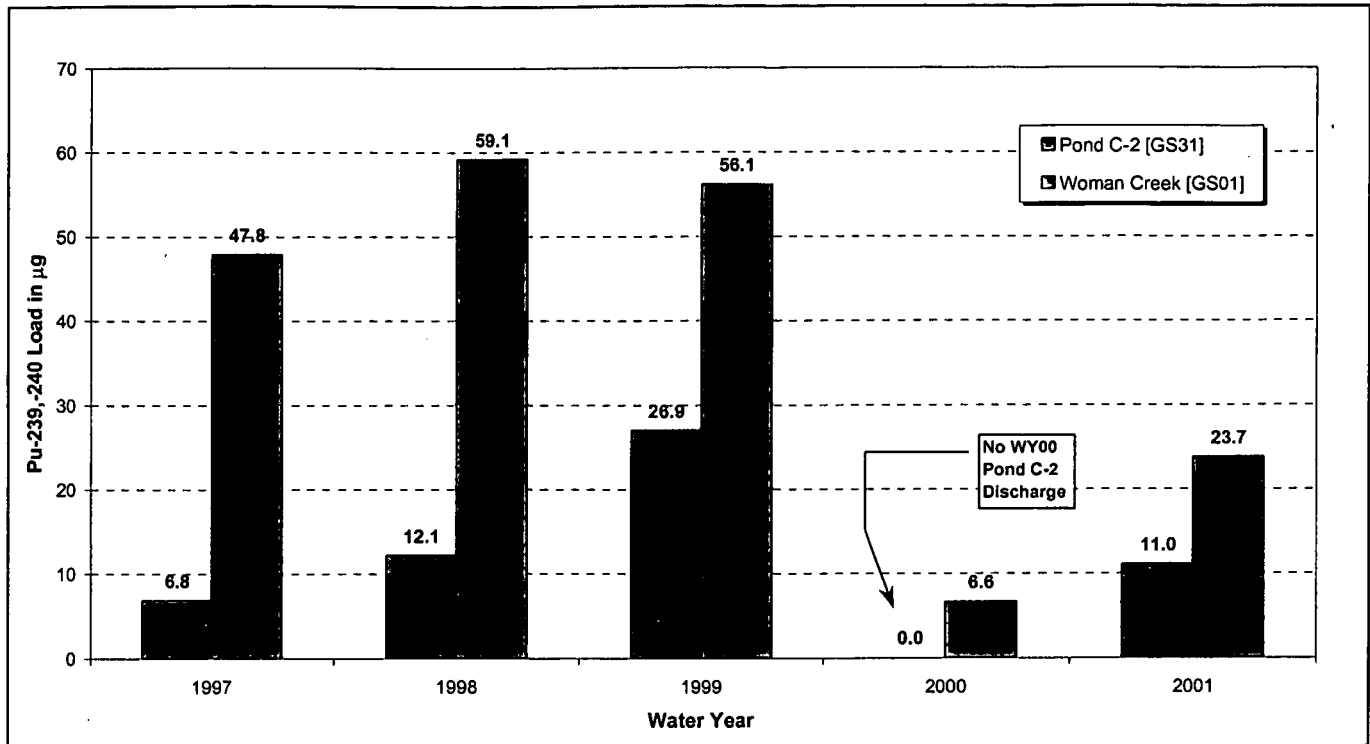


Figure 5-12. Annual Pu Loads at GS01 and GS31: WY97-01.

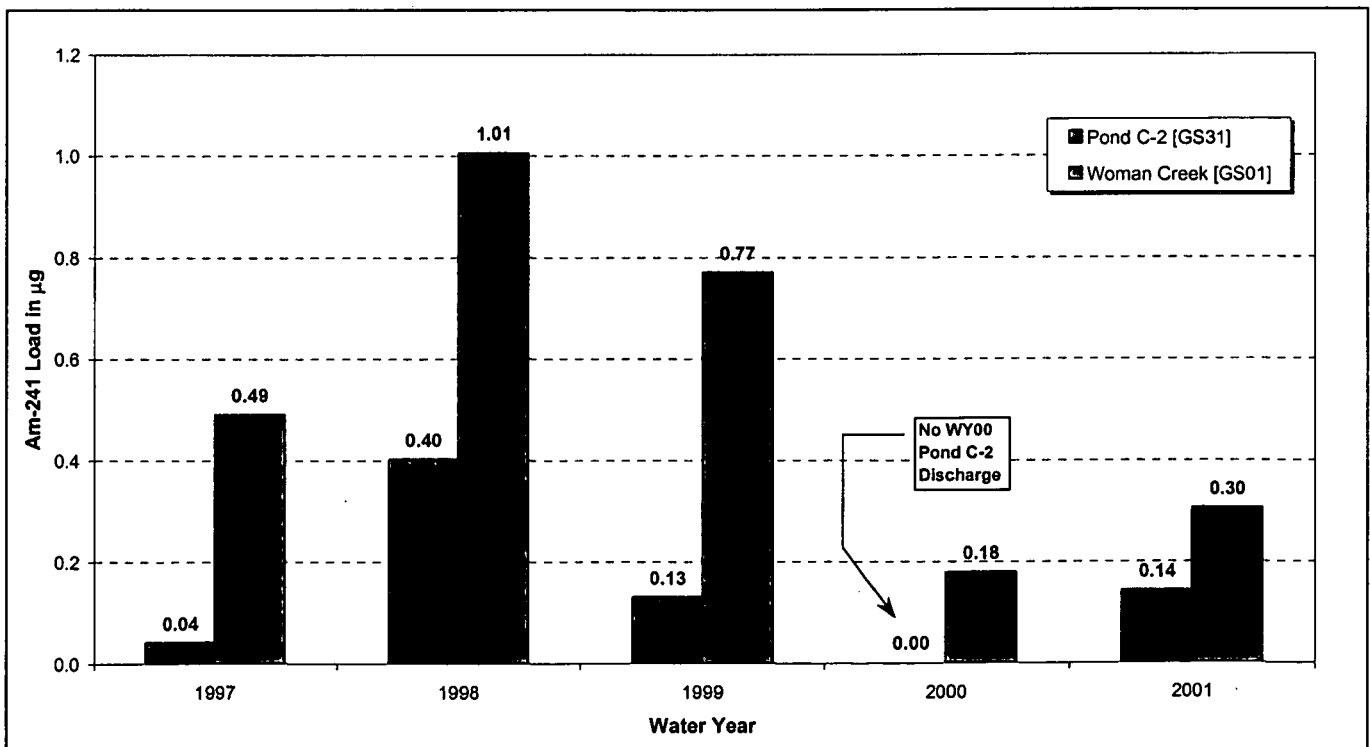


Figure 5-13. Annual Am Loads at GS01 and GS31: WY97-01.

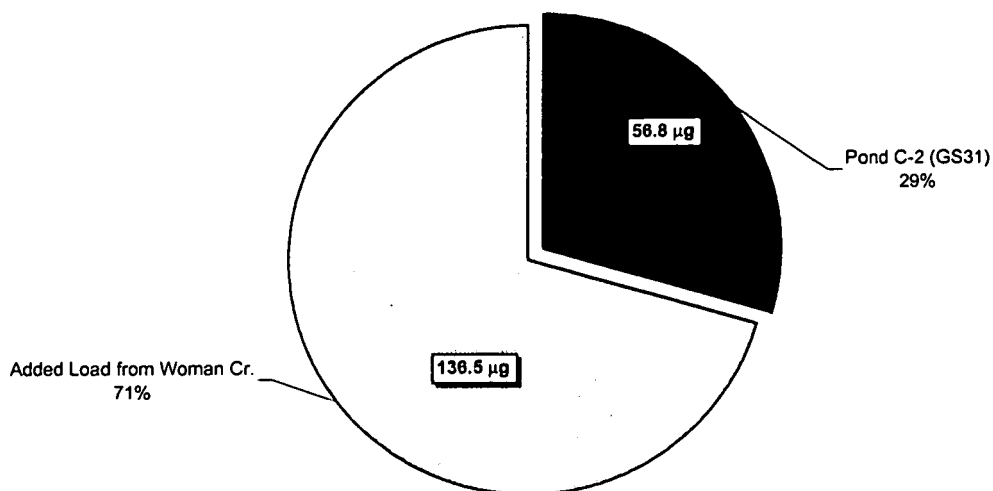


Figure 5-14. Relative Pu Load Totals at GS01 and GS31: WY97-01.

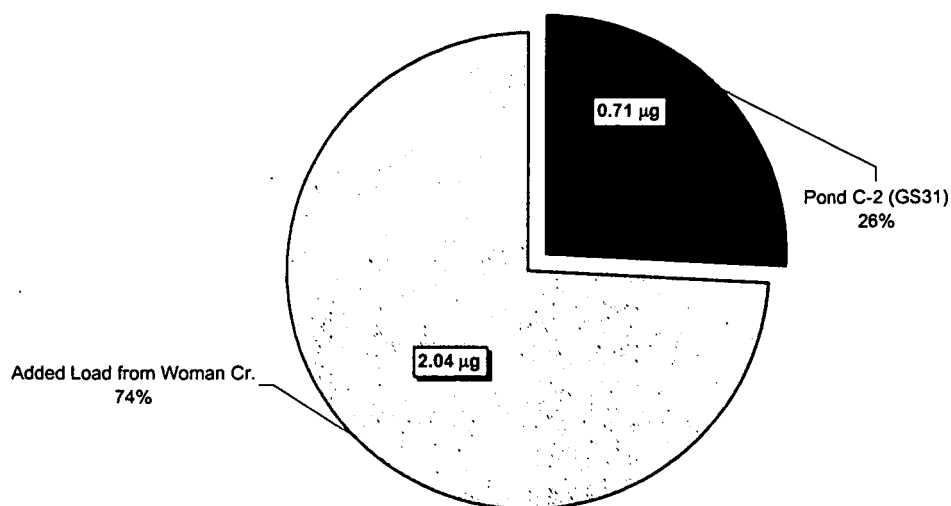


Figure 5-15. Relative Am Load Totals at GS01 and GS31: WY97-01.

5.4 TERMINAL DETENTION PONDS

This section summarizes the calculated Pu, Am, and isotopic uranium loads from terminal ponds A-4, B-5, and C-2. The following points are noted:

- Annual Pu and Am loads vary significantly year-to-year (Figure 5-16 and Figure 5-18).
- Pond B-5 accounts for a majority (75%) of the Pu load from the Site terminal ponds (Figure 5-17).
- Pond B-5 accounts for a majority (66%) of the Am load from the Site terminal ponds (Figure 5-19).
- Annual isotopic uranium loads are more consistent year-to-year (Figure 5-20, Figure 5-22 and Figure 5-24).
- Pond A-4 accounts for a majority (54-56%) of the isotopic uranium loads from the Site terminal ponds (Figure 5-21, Figure 5-23 and Figure 5-25).

Table 5-6. Pu and Am Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

Water Year	Pu-239,-240 (μg)			Am-241 (μg)		
	Pond A-4 [GS11]	Pond B-5 [GS08]	Pond C-2 [GS31]	Pond A-4 [GS11]	Pond B-5 [GS08]	Pond C-2 [GS31]
1997	46.0	11.8	6.8	0.52	0.28	0.04
1998	30.7	22.4	12.1	1.33	0.40	0.40
1999	27.0	255.9	26.9	0.35	1.73	0.13
2000	27.9	245.3	0.0; No C-2 Discharge	0.02	3.16	0.00; No C-2 Discharge
2001	5.3	32.0	11.0	0.11	0.46	0.14
Total	136.9	567.5	56.8	2.33	6.03	0.71

Notes: * No Pond C-2 discharge in WY00.

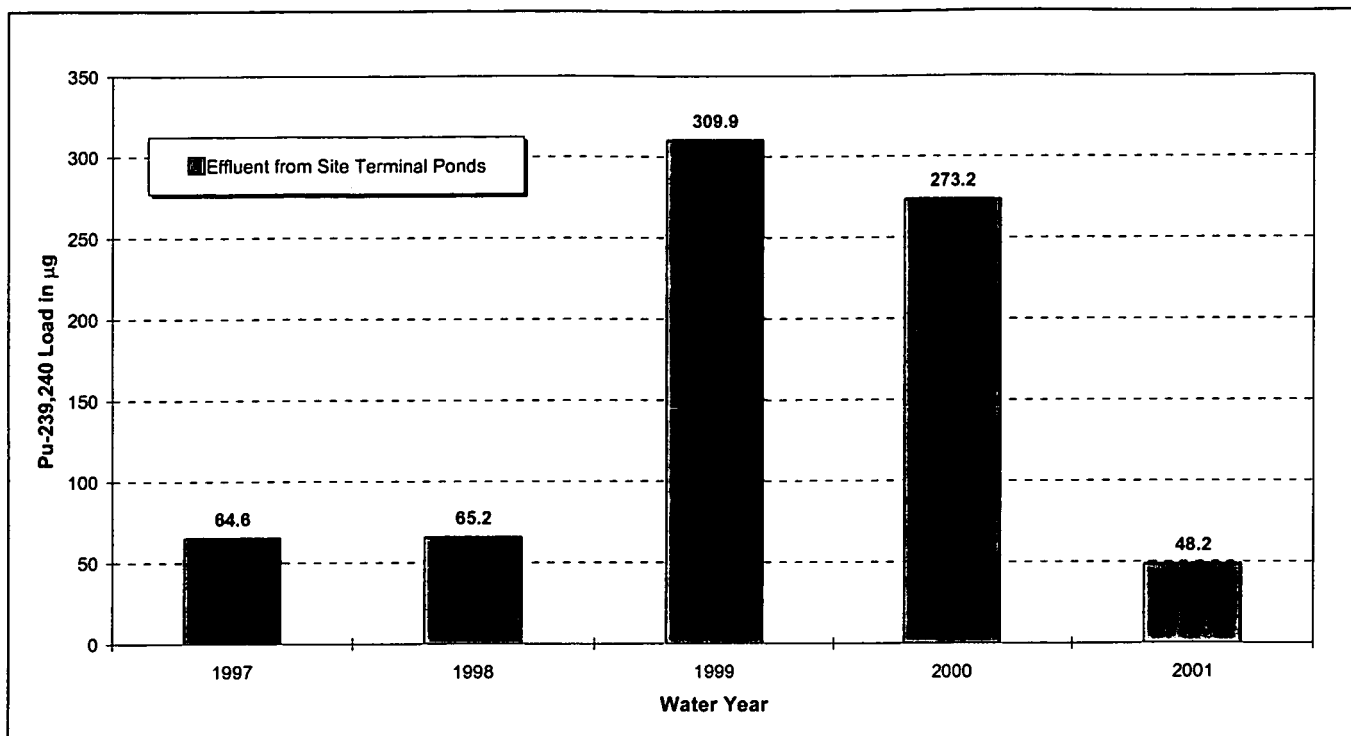


Figure 5-16. Annual Pu Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

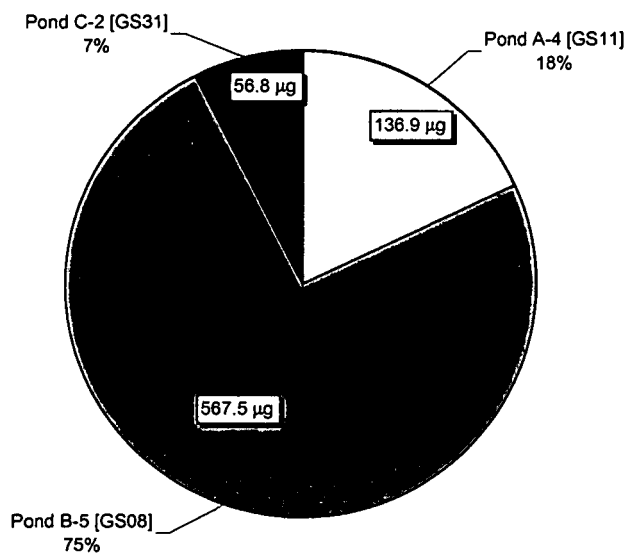


Figure 5-17. Relative Pu Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97-01.

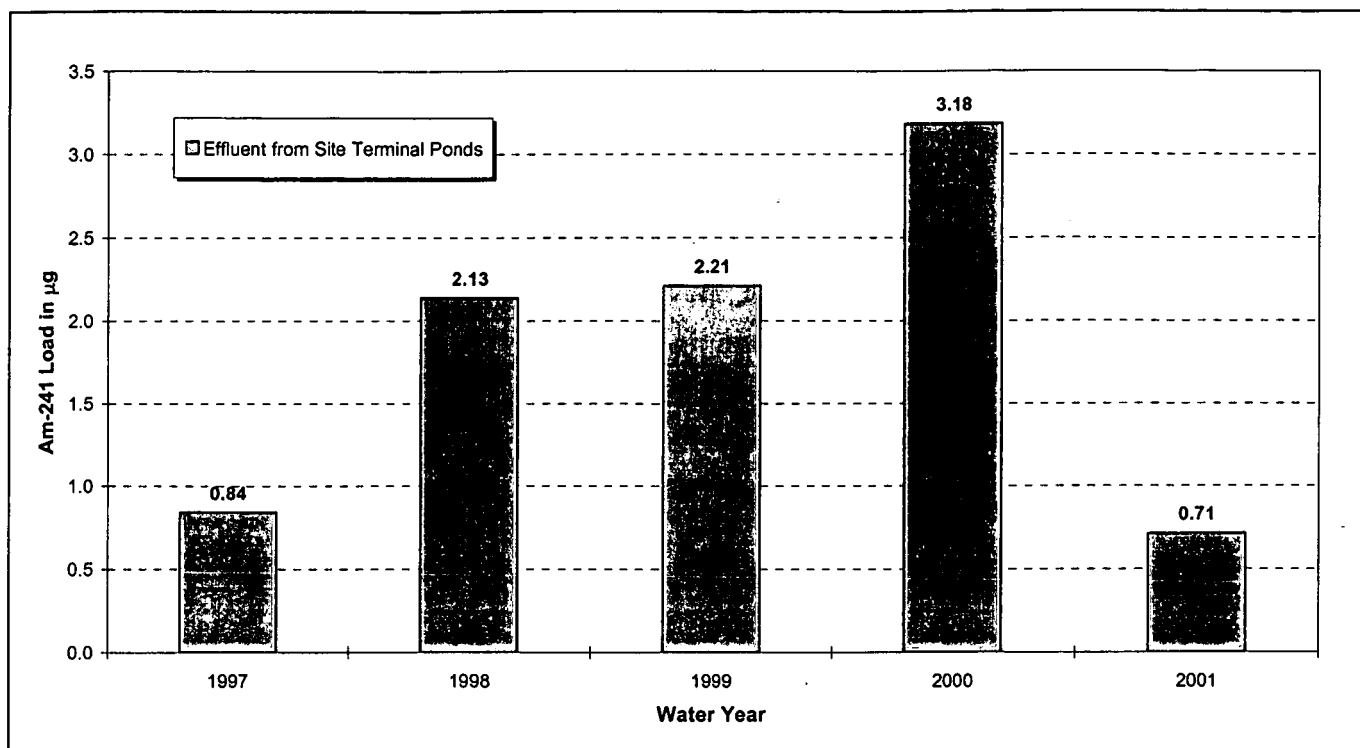


Figure 5-18. Annual Am Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

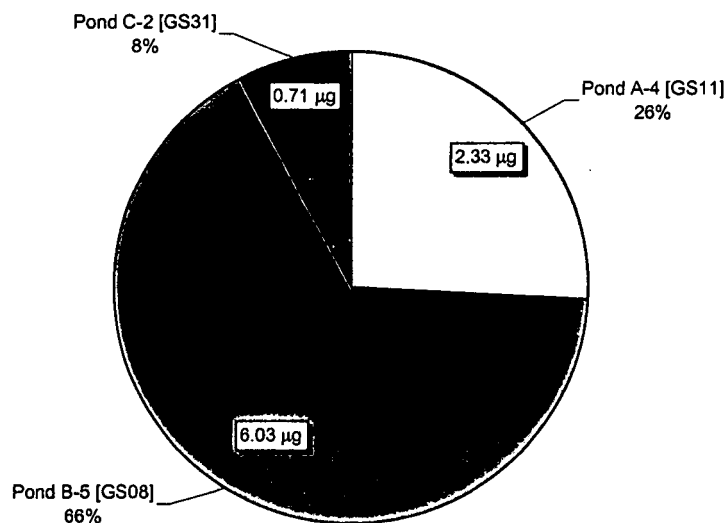


Figure 5-19. Relative Am Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97-01.

Table 5-7. U-233,234 Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

Water Year	U-233,234 (g)		
	Pond A-4 [GS11]	Pond B-5 [GS08]	Pond C-2 [GS31]
1997	0.055	0.018	0.005
1998	0.083	0.037	0.014
1999	0.041	0.033	0.009
2000	0.018	0.036	0.00; No C-2 Discharge
2001	0.036	0.035	0.004
Total	0.232	0.160	0.031

Table 5-8. U-235 Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

Water Year	U-235 (g)		
	Pond A-4 [GS11]	Pond B-5 [GS08]	Pond C-2 [GS31]
1997	7.82	3.45	0.75
1998	9.04	4.63	1.09
1999	5.29	5.29	1.66
2000	2.25	3.95	0.00; No C-2 Discharge
2001	4.20	3.16	0.34
Total	28.59	20.49	3.84

Table 5-9. U-238 Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

Water Year	U-238 (g)		
	Pond A-4 [GS11]	Pond B-5 [GS08]	Pond C-2 [GS31]
1997	1006.6	323.7	102.4
1998	1602.2	647.9	342.1
1999	762.5	625.4	187.5
2000	309.5	583.0	0.00; No C-2 Discharge
2001	634.2	570.3	66.6
Total	4315.0	2750.3	698.6

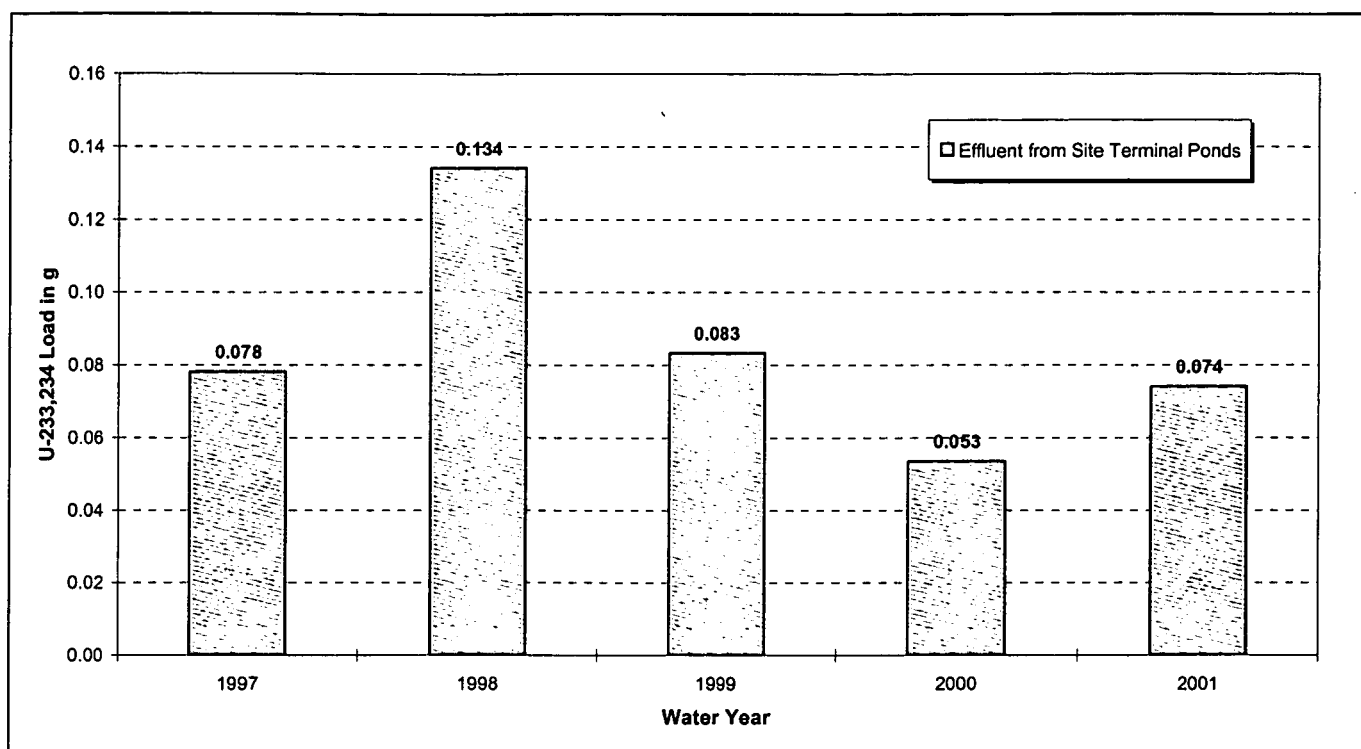


Figure 5-20. Annual U-233,234 Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

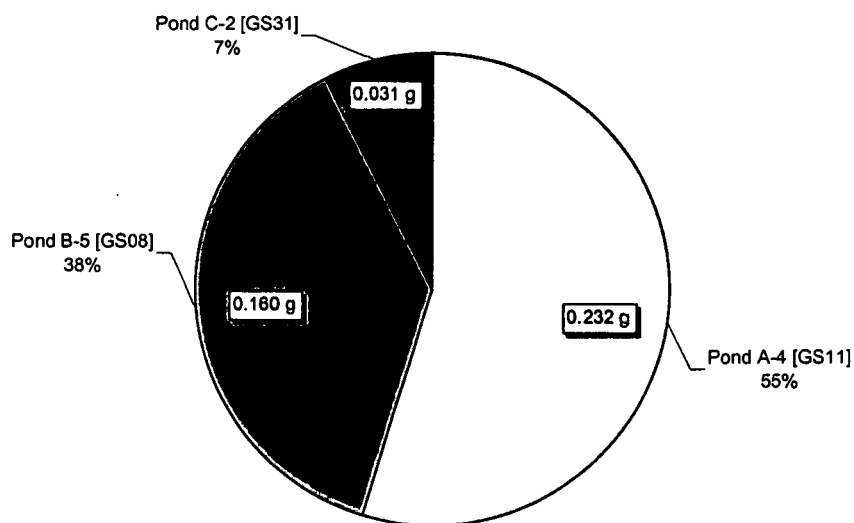


Figure 5-21. Relative U-233,234 Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97-01.

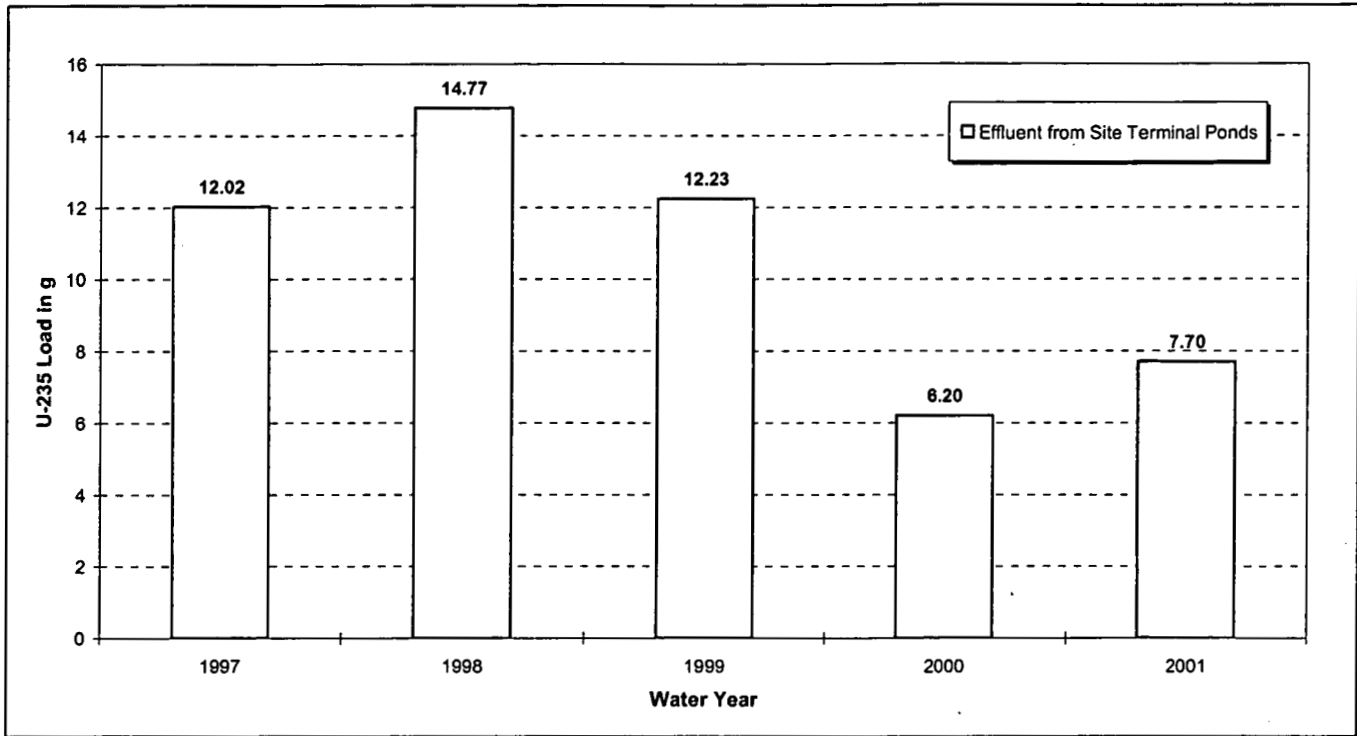


Figure 5-22. Annual U-235 Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

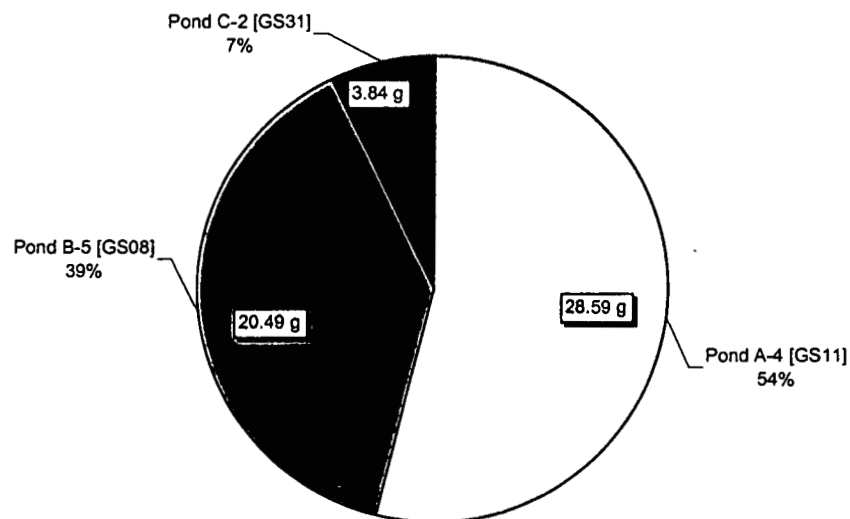


Figure 5-23. Relative U-235 Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97-01.

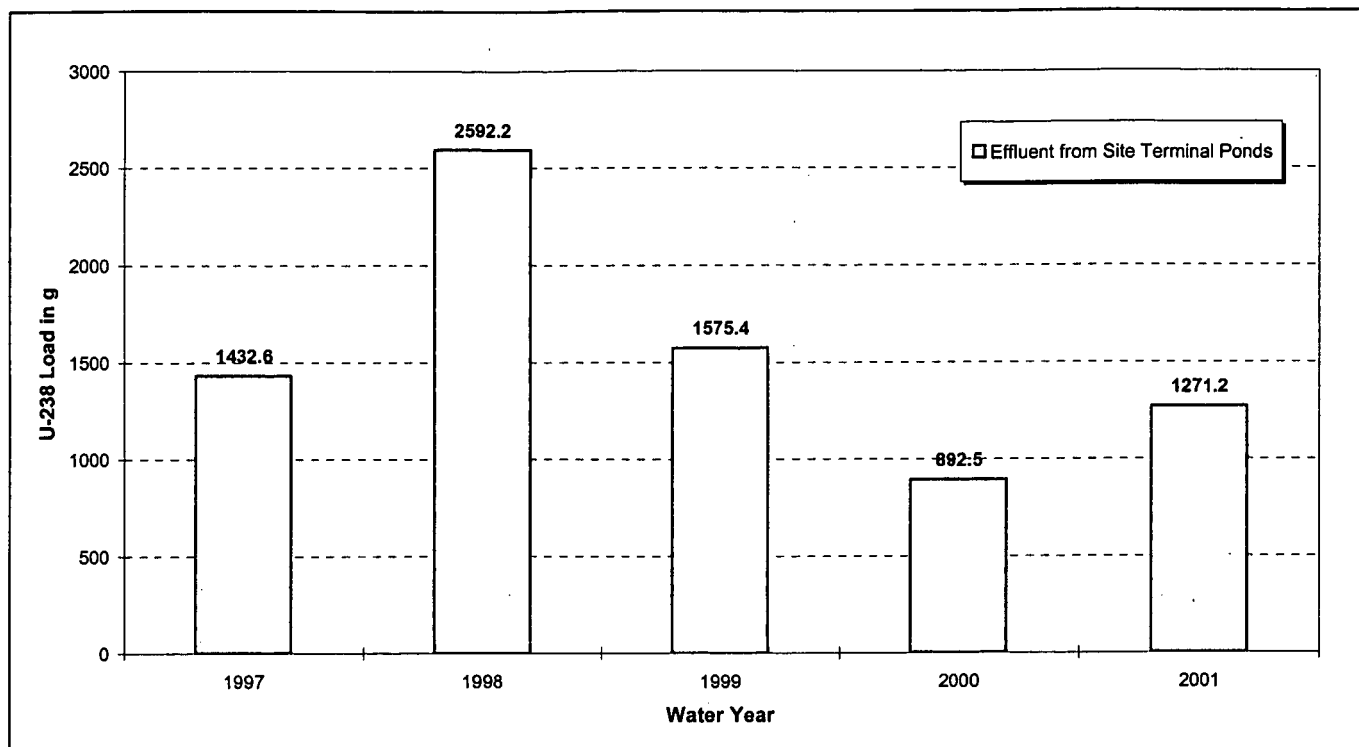


Figure 5-24. Annual U-238 Loads from Terminal Ponds A-4, B-5, and C-2: WY97-01.

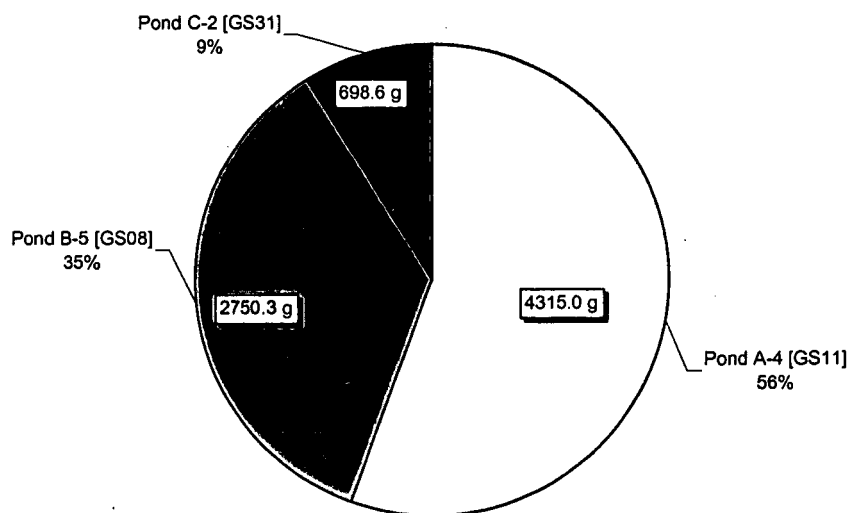


Figure 5-25. Relative U-238 Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97-01.

5.4.1 A- and B-Series Ponds (POCs GS08 and GS11)

This section summarizes the calculated Pu, Am, and isotopic uranium loads for the A- and B-Series Ponds. Since water transfers occur between ponds, the load analysis below is performed for both pond series combined. The influent load sources are GS10 and the WWTP (S. Walnut), and SW093 (N. Walnut).¹¹ The effluent loads are GS08 (Pond B-5 outlet) and GS11 (Pond A-4 outlet). The following points are noted:

- Total Pu load removal by Pond A-4 and B-5 is calculated as 69% (Table 5-10).
- Total Am load removal by Pond A-4 and B-5 is calculated as 85% (Table 5-11).
- Annual Pu and Am loads vary significantly year-to-year (Figure 5-26 and Figure 5-29).
- Annual isotopic uranium loads are more consistent year-to-year (Figure 5-32, Figure 5-35 and Figure 5-38).
- There is essentially no isotopic uranium load removal in Ponds A-4 and B-5. Some years show gains while others show losses (Figure 5-34, Figure 5-37 and Figure 5-40).

Table 5-10. Pu Load Summary for the A- and B-Series Ponds: WY97-01.

Water Year	Pu-239,240 (µg)					Percent Removal
	Influent (WWTP)	Influent (GS10)	Influent (SW093)	Effluent (GS08)	Effluent (GS11)	
1997	13.4	564.0	178.7	11.8	46.0	92%
1998	8.7	345.3	70.9	22.4	30.7	87%
1999	23.2	306.8	126.9	255.9	27.0	38%
2000	18.4	329.6	88.5	245.3	27.9	37%
2001	9.1	140.9	44.6	32.0	5.3	81%
Total	72.8	1686.6	509.5	567.5	136.9	69%

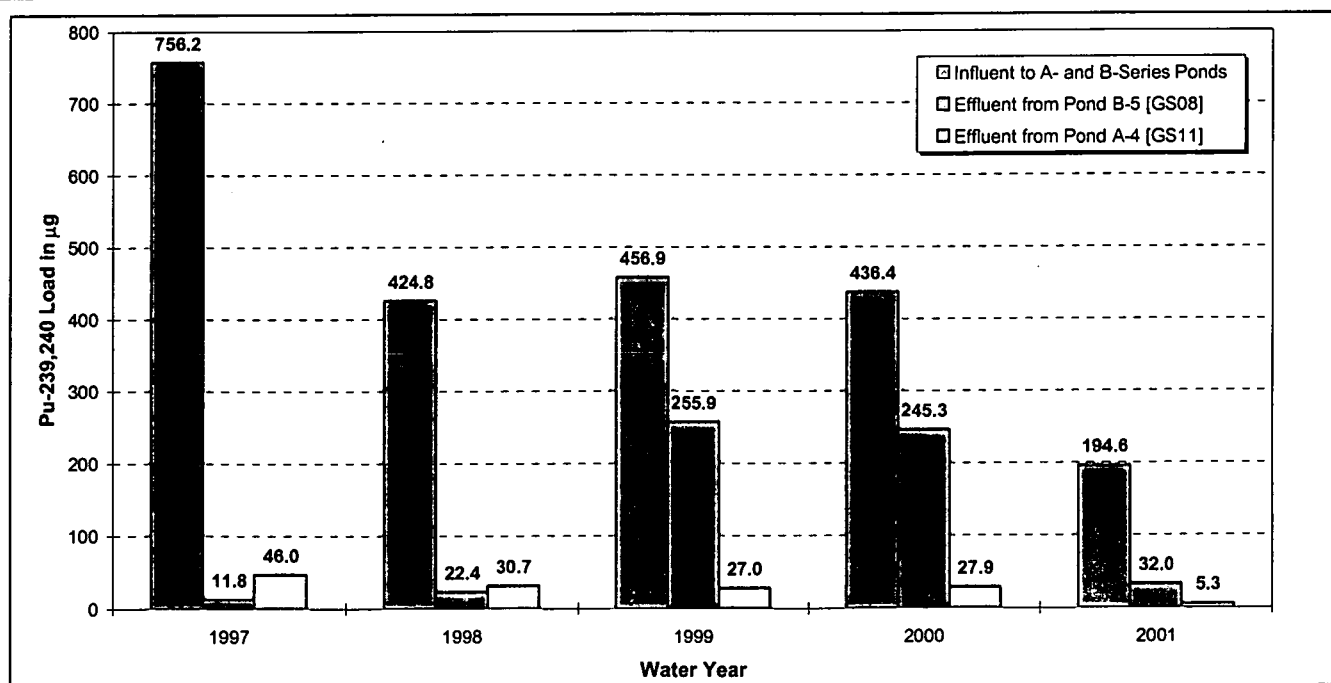


Figure 5-26. Annual Pu Loads for the A- and B-Series Ponds: WY97-01.

¹¹ Although SW091 is also a load source to N. Walnut (Figure 3-2), the flow volumes at SW091 are approximately 0.3% of the volumes at SW093. Additionally, SW091 does not collect continuous flow-paced sample to allow for more accurate load calculations. Therefore, SW091 load is not included due to its relative insignificance.

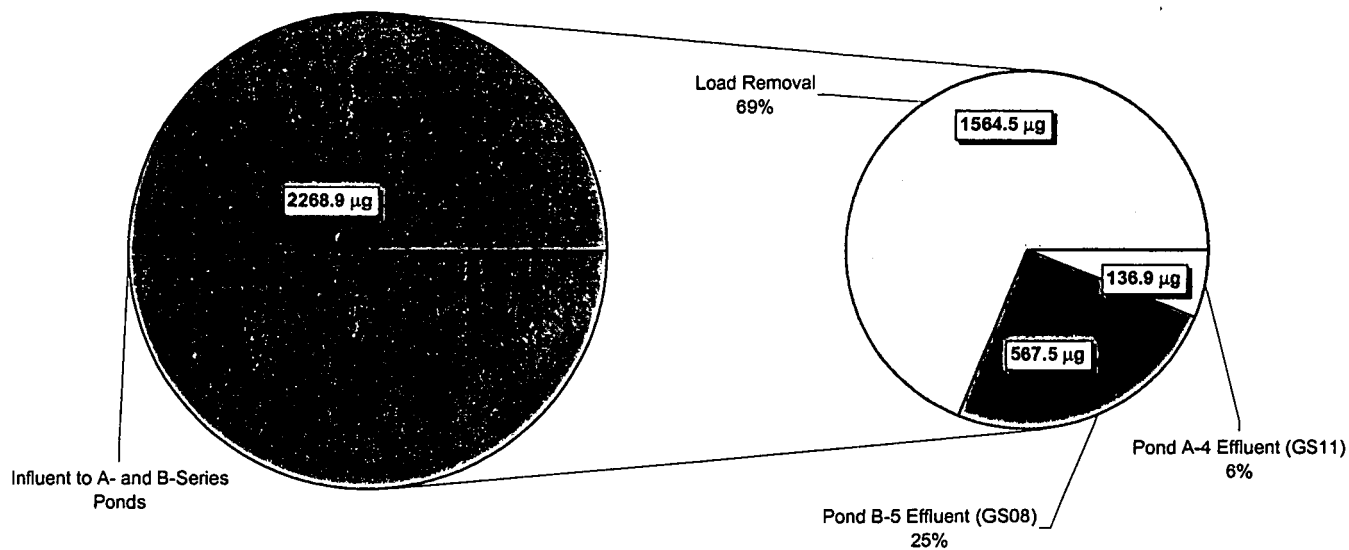


Figure 5-27. Relative Pu Load Totals for the A- and B-Series Terminal Ponds: WY97-01.

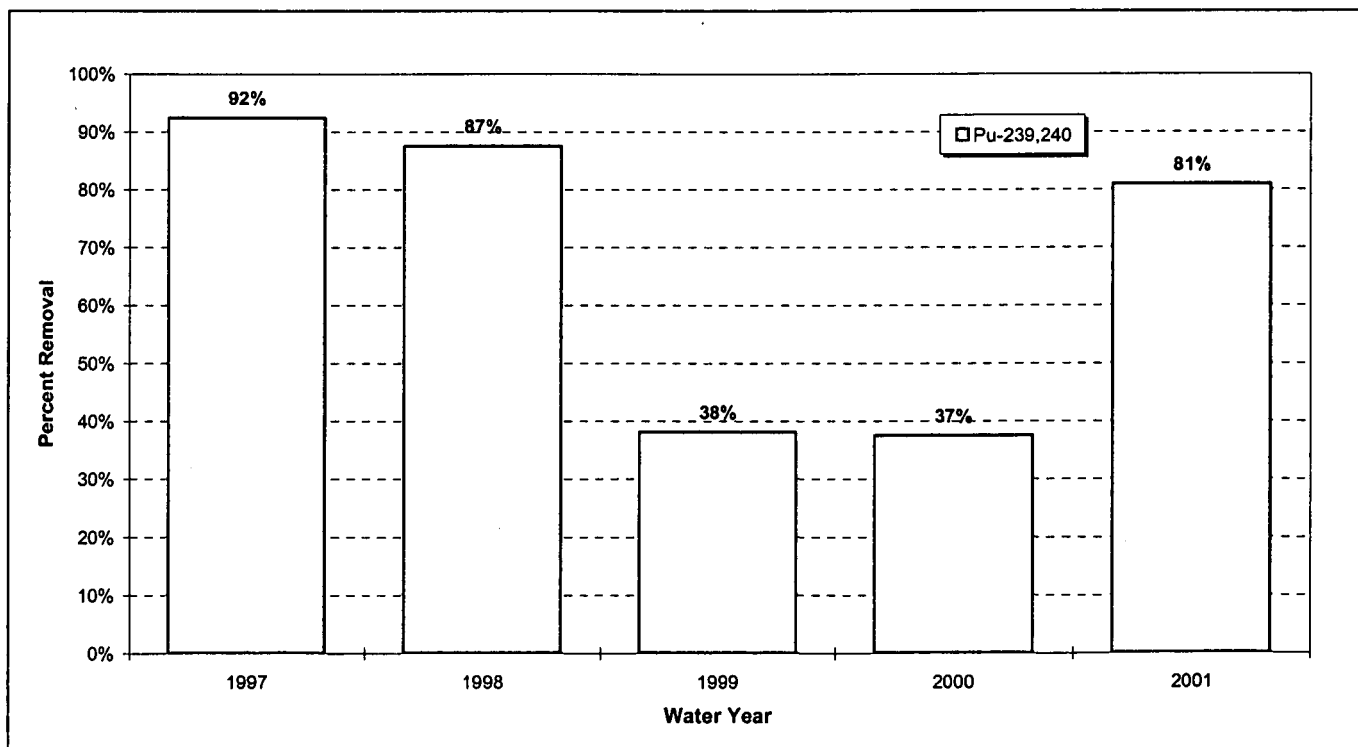


Figure 5-28. Annual Pu Load Removal for the A- and B-Series Ponds: WY97-01.

Table 5-11. Am Load Summary for the A- and B-Series Ponds: WY97-01.

Water Year	Am-241 (μg)					Percent Removal
	Influent (WWTP)	Influent (GS10)	Influent (SW093)	Effluent (GS08)	Effluent (GS11)	
1997	0.44	11.98	2.27	0.28	0.52	95%
1998	0.58	4.95	1.38	0.40	1.33	75%
1999	0.11	12.55	1.69	1.73	0.35	86%
2000	0.33	14.65	1.03	3.16	0.02	80%
2001	0.26	2.71	0.65	0.46	0.11	84%
Total	1.71	46.84	7.02	6.03	2.33	85%

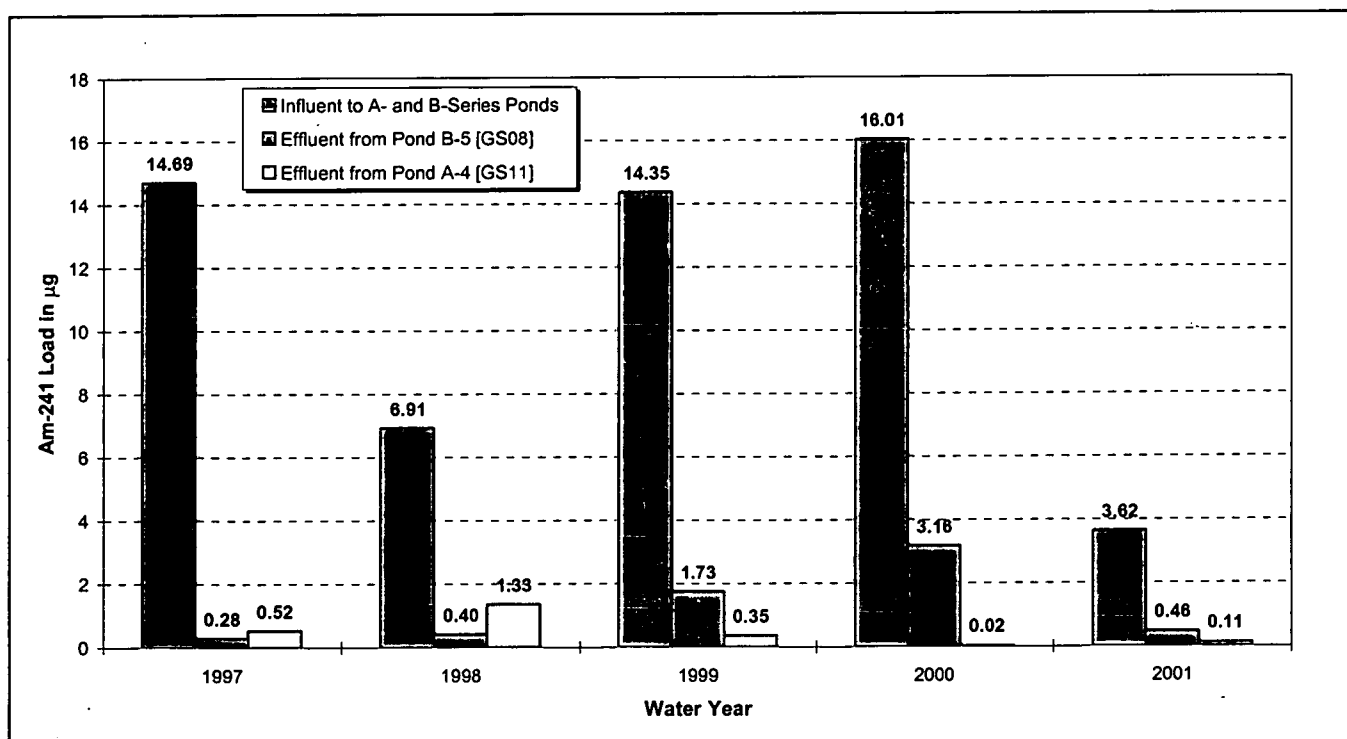


Figure 5-29. Annual Am Loads for the A- and B-Series Ponds: WY97-01.

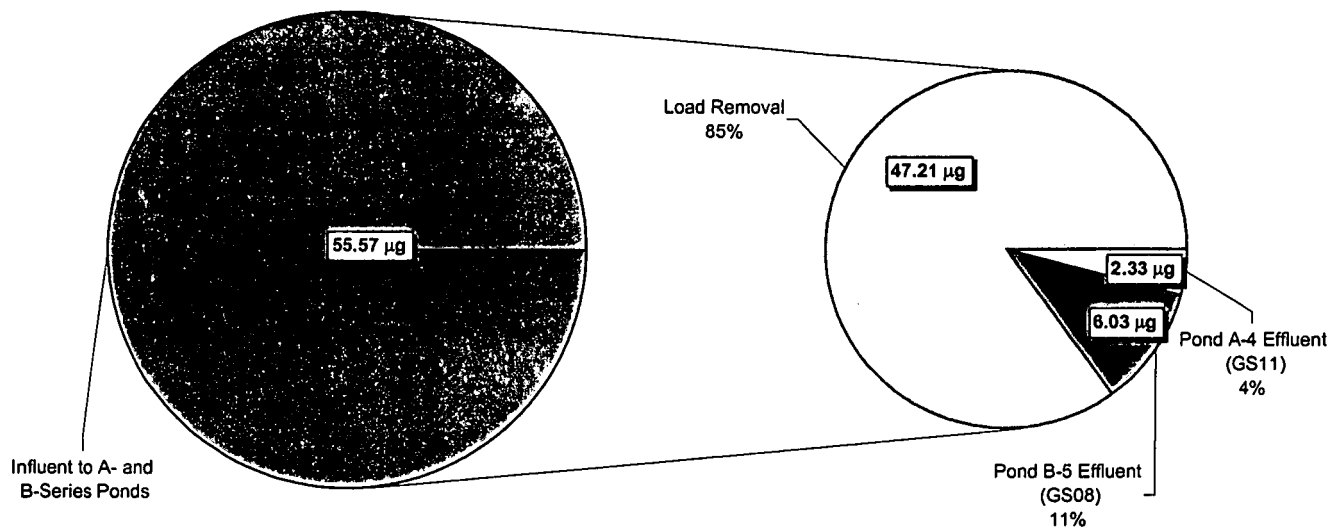


Figure 5-30. Relative Am Load Totals for the A- and B-Series Ponds: WY97-01.

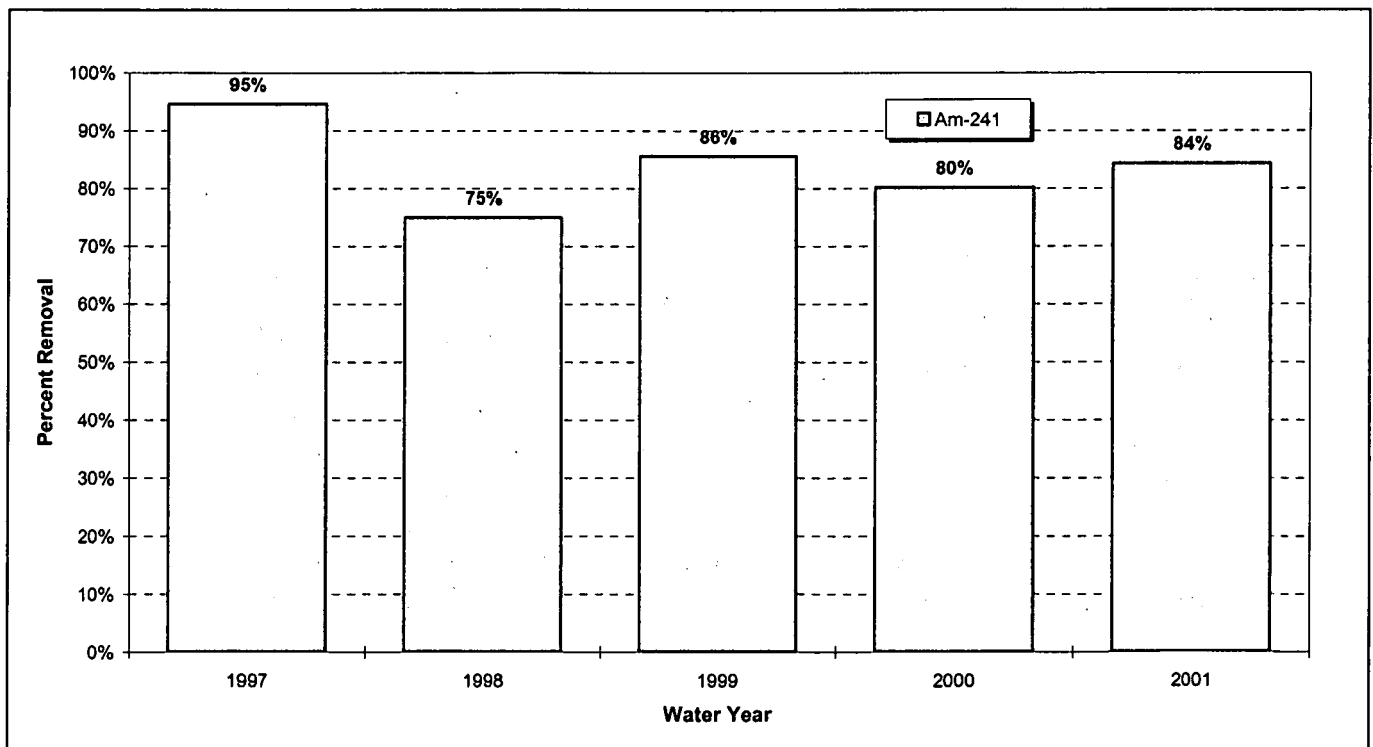


Figure 5-31. Annual Am Load Removal for the A- and B-Series Ponds: WY97-01.

Table 5-12. U-233,234 Load Summary for the A- and B-Series Ponds: WY97-01.

Water Year	U-233,234 (g)					Percent Removal
	Influent (WWTP)	Influent (GS10)	Influent (SW093)	Effluent (GS08)	Effluent (GS11)	
1997	0.013	0.031	0.033	0.018	0.055	4%
1998	0.023	0.039	0.041	0.037	0.083	-16%
1999	0.005	0.030	0.033	0.033	0.041	-9%
2000	0.006	0.022	0.026	0.036	0.018	1%
2001	0.013	0.030	0.035	0.035	0.036	9%
Total	0.060	0.151	0.170	0.160	0.232	-3%

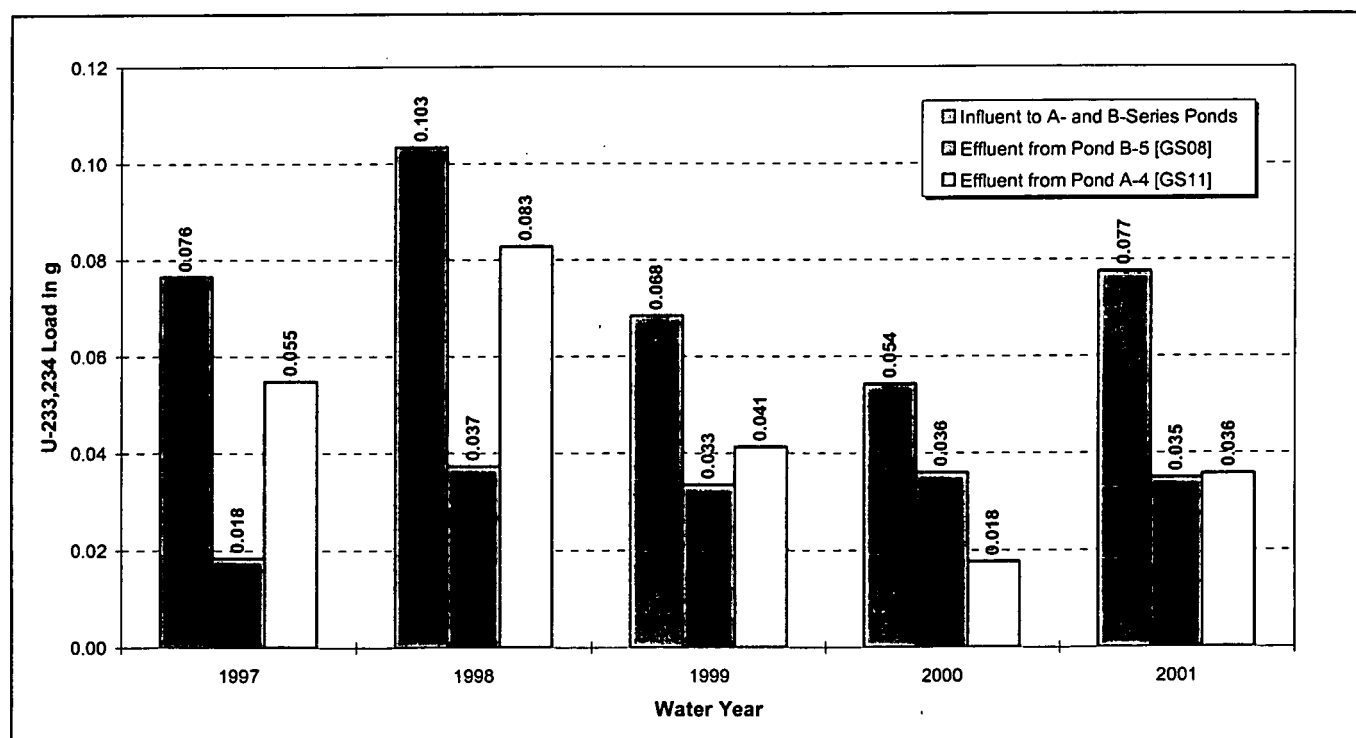


Figure 5-32. Annual U-233,234 Loads for the A- and B-Series Ponds: WY97-01.

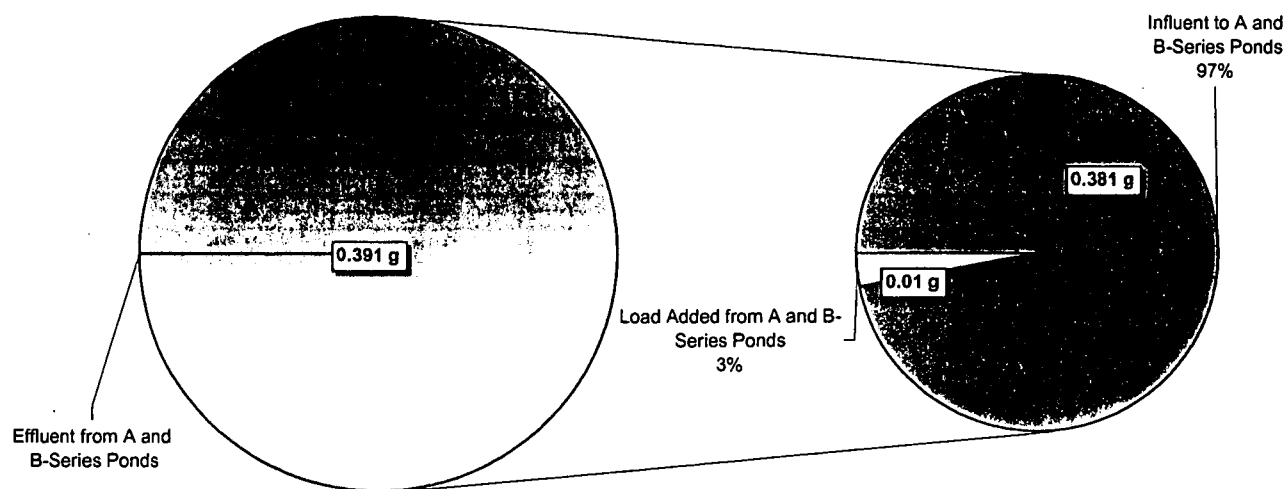


Figure 5-33. Relative U-233,234 Load Totals for the A- and B-Series Ponds: WY97-01.

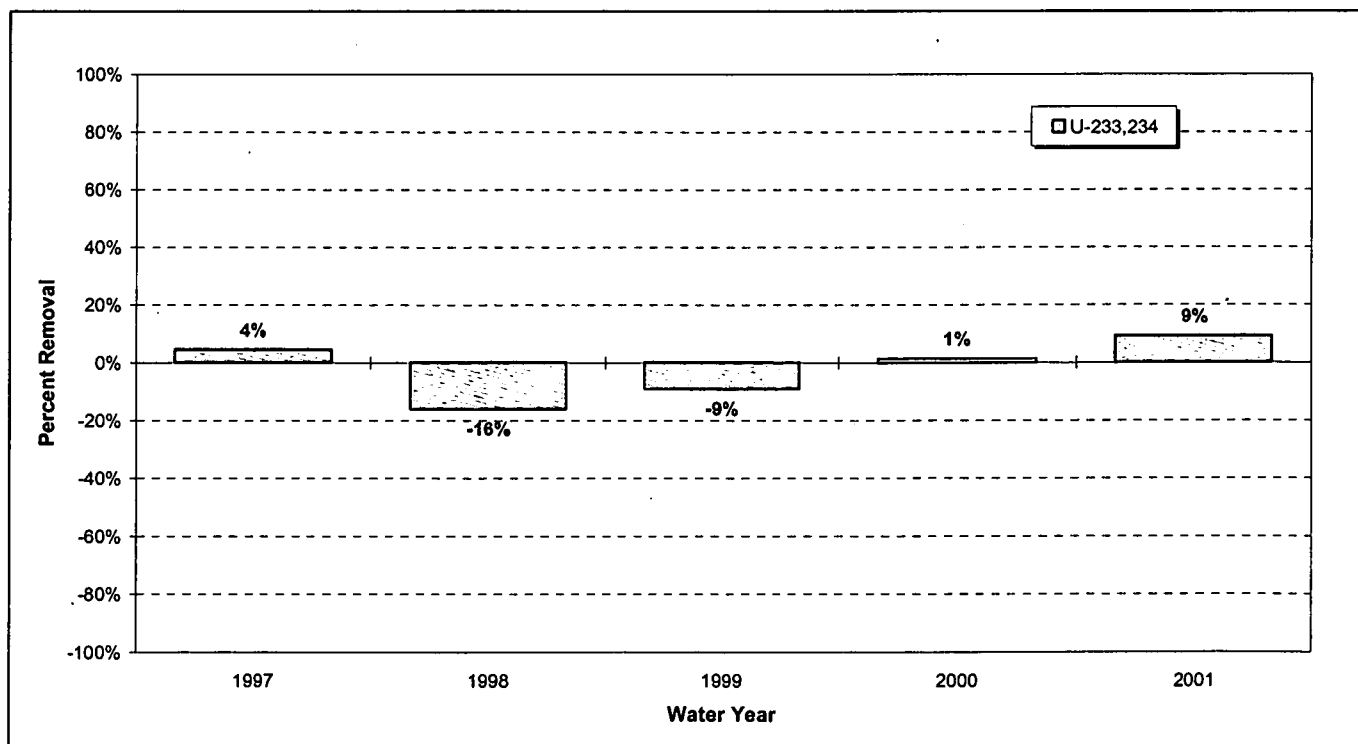


Figure 5-34. Annual U-233,234 Load Removal for the A- and B-Series Ponds: WY97-01.

Table 5-13. U-235 Load Summary for the A- and B-Series Ponds: WY97-01.

Water Year	U-235 (g)					Percent Removal
	Influent (WWTP)	Influent (GS10)	Influent (SW093)	Effluent (GS08)	Effluent (GS11)	
1997	2.57	4.05	4.77	3.45	7.82	1%
1998	2.09	4.48	5.32	4.63	9.04	-15%
1999	1.21	3.57	3.53	5.29	5.29	-27%
2000	0.71	2.64	3.36	3.95	2.25	8%
2001	1.62	3.04	3.37	3.16	4.20	8%
Total	8.19	17.79	20.35	20.49	28.59	-6%

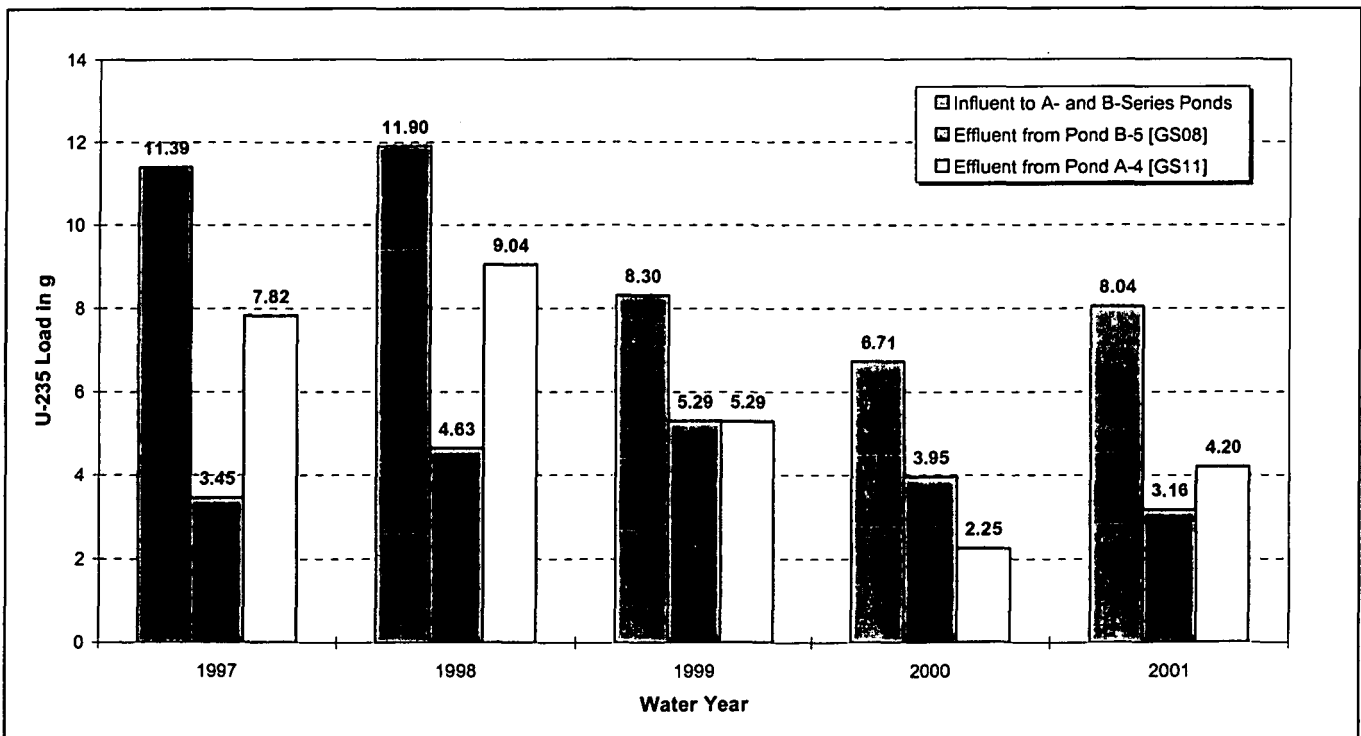


Figure 5-35. Annual U-235 Loads for the A- and B-Series Ponds: WY97-01.

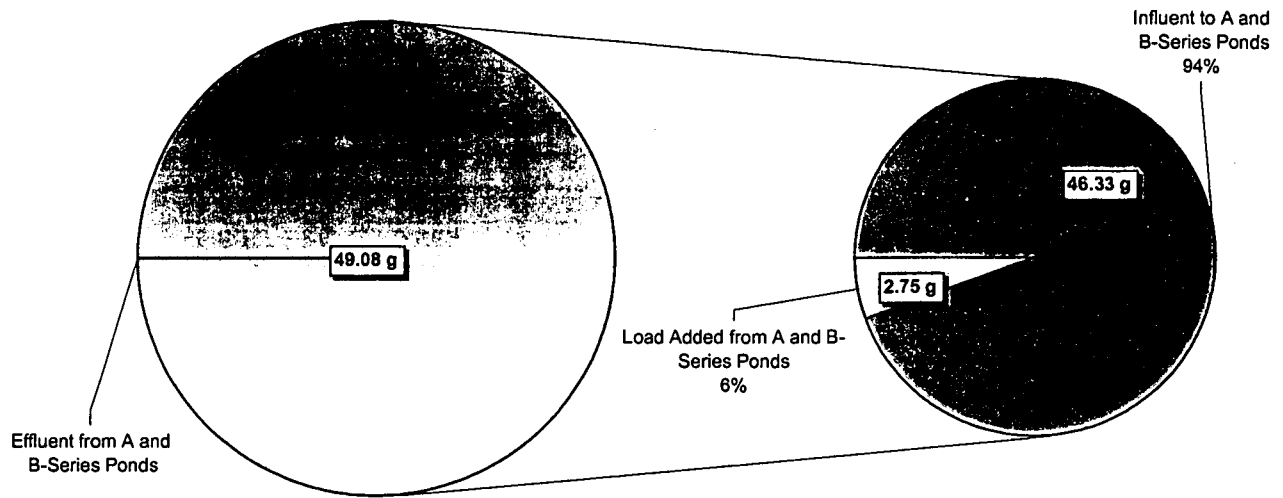


Figure 5-36. Relative U-235 Load Totals for the A- and B-Series Ponds: WY97-01.

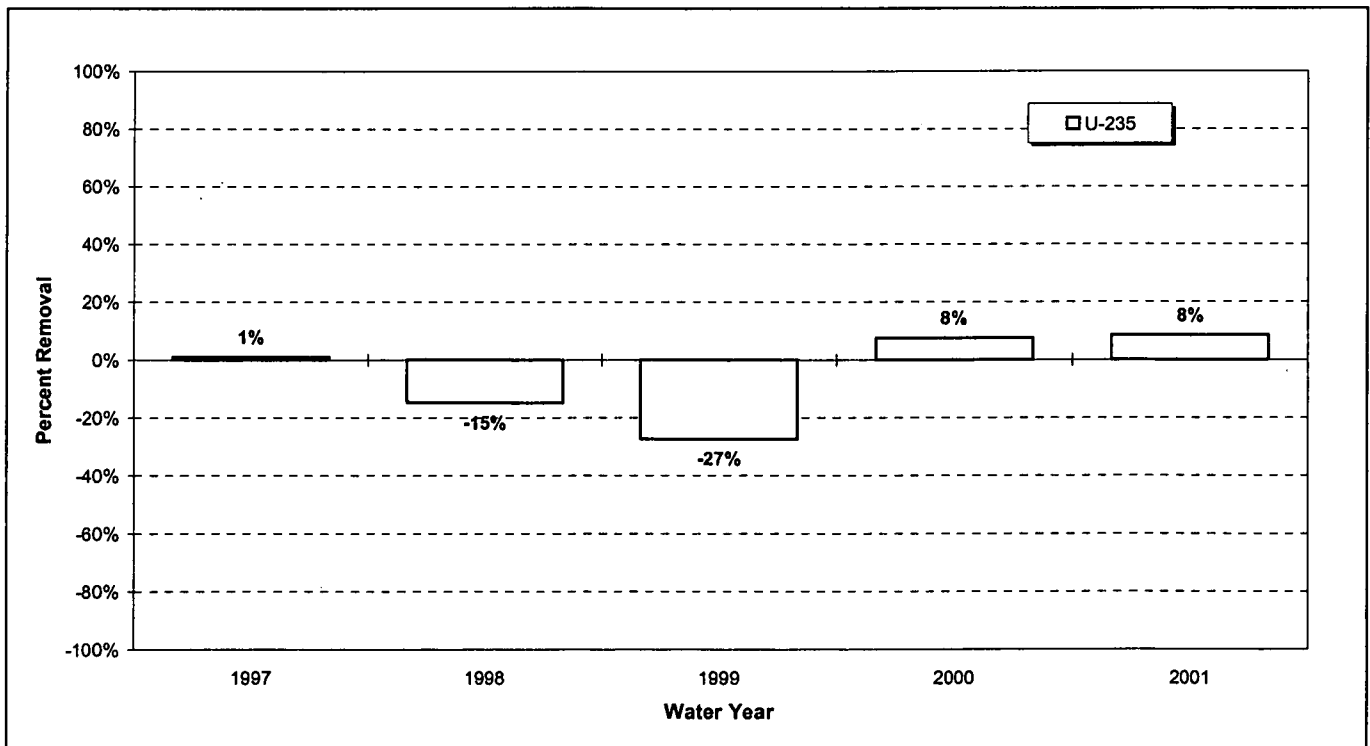


Figure 5-37. Annual U-235 Load Removal for the A- and B-Series Ponds: WY97-01.

Table 5-14. U-238 Load Summary for the A- and B-Series Ponds: WY97-01.

Water Year	U-238 (g)					Percent Removal
	Influent (WWTP)	Influent (GS10)	Influent (SW093)	Effluent (GS08)	Effluent (GS11)	
1997	215.3	555.6	778.3	323.7	1006.6	14%
1998	514.1	678.9	875.5	647.9	1602.2	-9%
1999	106.4	573.8	676.7	625.4	762.5	-2%
2000	108.9	396.0	530.5	583.0	309.5	14%
2001	252.4	514.6	637.7	570.3	634.2	14%
Total	1197.1	2718.9	3498.9	2750.3	4315.0	5%

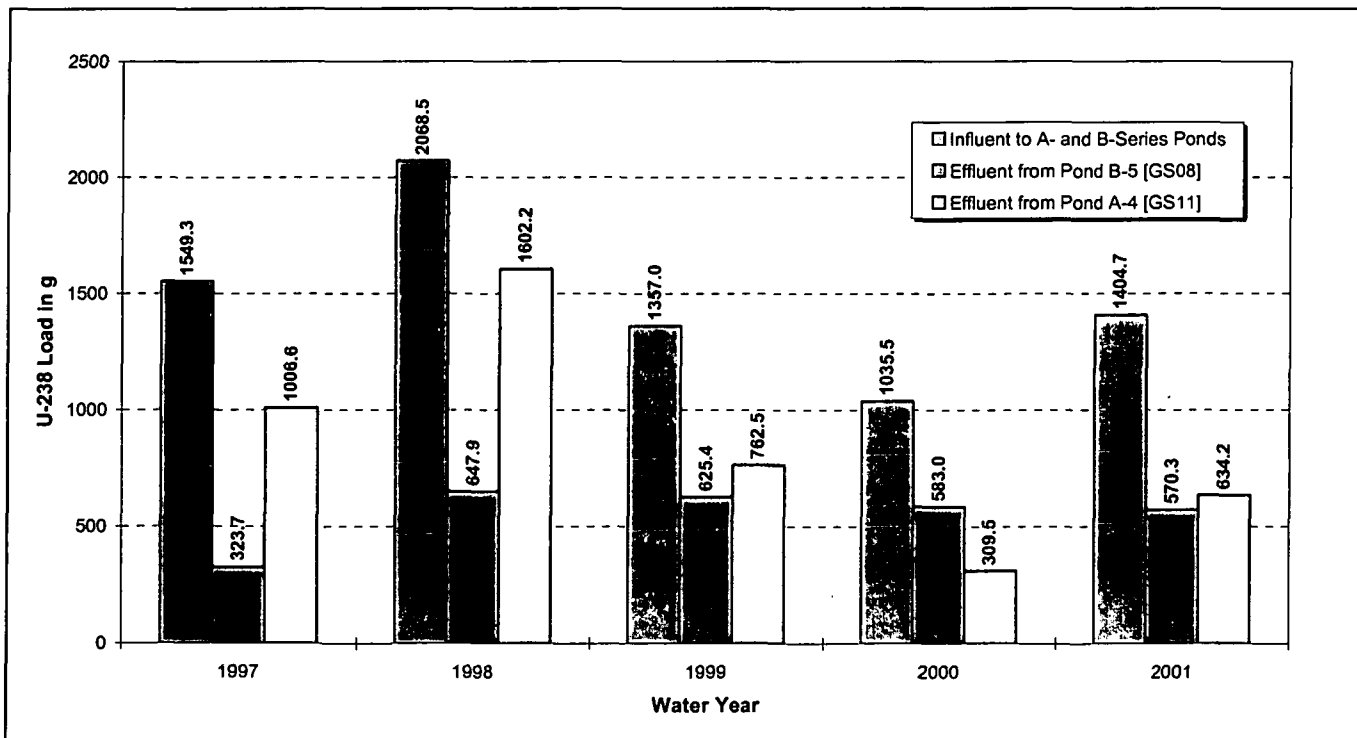


Figure 5-38. Annual U-238 Loads for the A- and B-Series Ponds: WY97-01.

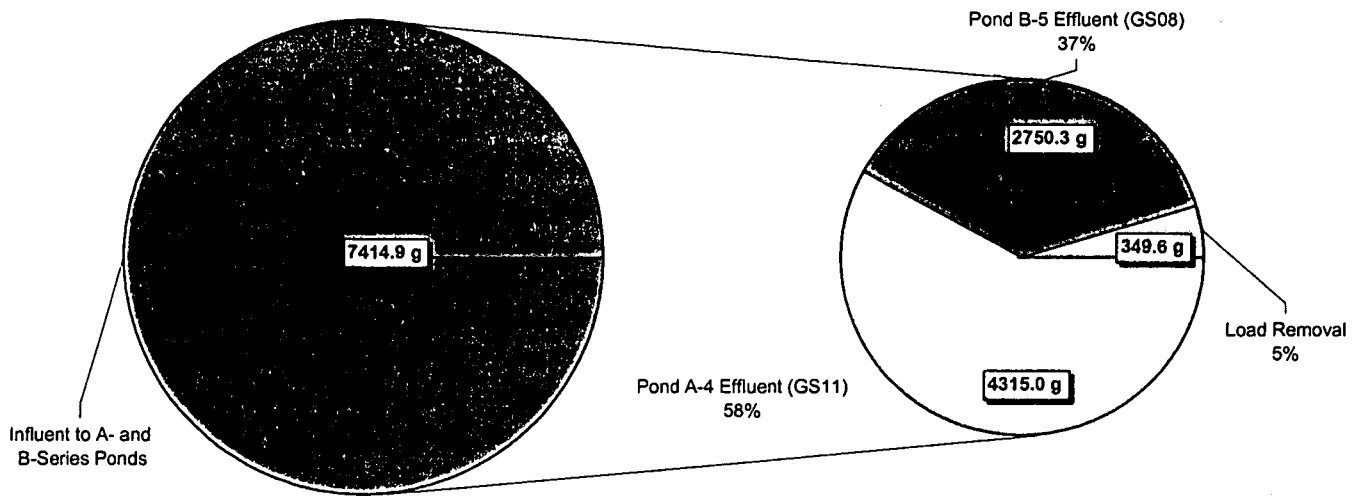


Figure 5-39. Relative U-238 Load Totals for the A- and B-Series Ponds: WY97-01.

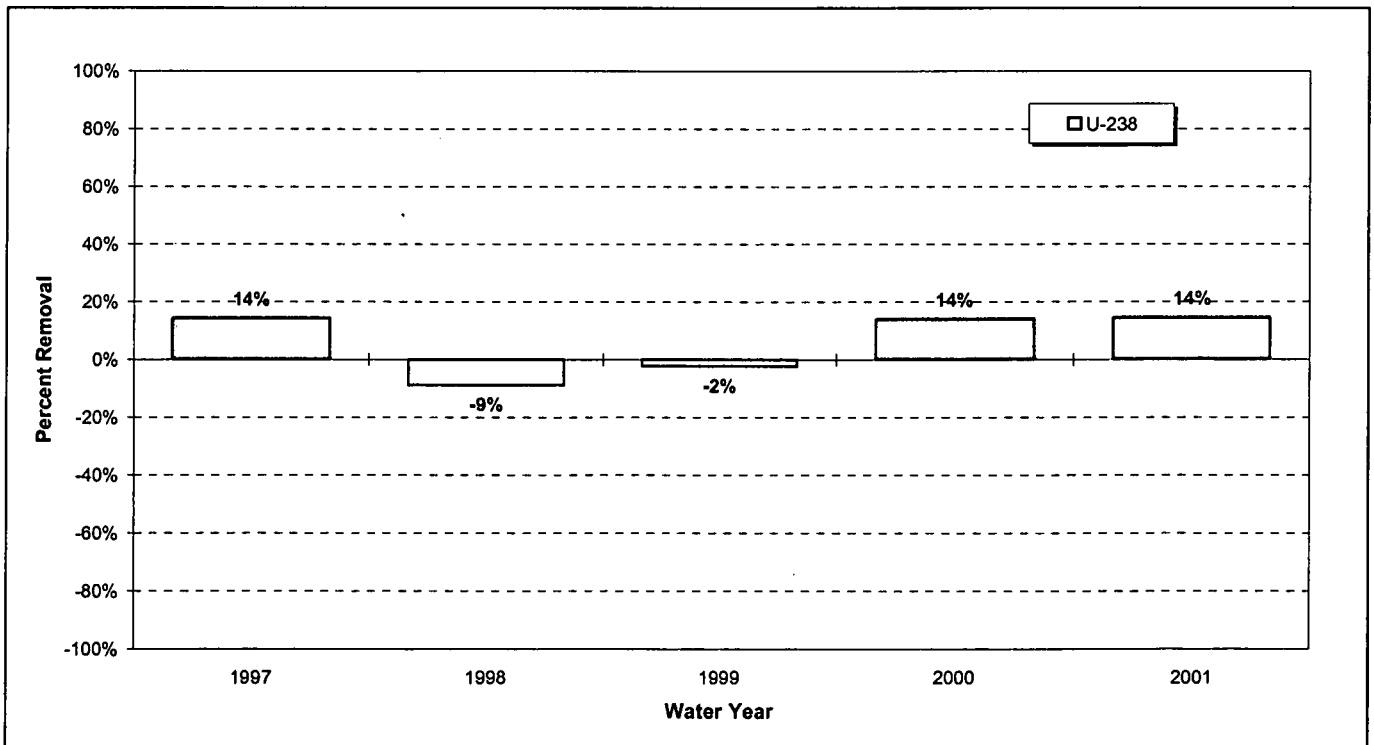


Figure 5-40. Annual U-238 Load Removal for the A- and B-Series Ponds: WY97-01.

5.4.2 Pond C-2 (POC GS31)

This section summarizes the calculated Pu, Am, and isotopic uranium loads for Pond C-2. The influent load source is SW027 (SID at Pond C-2 inlet). The effluent loads are calculated at GS31 (Pond C-2 outlet). The following points are noted:

- Total Pu load removal by Pond C-2 is calculated as 74% (Table 5-15).
- Total Am load removal by Pond C-2 is calculated as 14% (Table 5-16).
- Water years 1998 and 2001 show that Am load from Pond C-2 exceeded inflow load. Similarly, for WY01 Pu load from Pond C-2 exceeded inflow load. This lack of removal is likely due to the fact that higher activity samples were collected during pond dewatering to allow for video surveillance of the outlet works. To achieve dewatering, the outlet works valve on the bottom (essentially in the pond bottom sediments) of the pond is used to drain the pond. At these low pond levels, higher turbidity values are expected. Since Pu and Am tend to be transported in association with particulate matter, the higher activities are expected.
- Annual Pu and Am loads vary significantly year-to-year (Figure 5-41 and Figure 5-44).
- Annual isotopic uranium loads also vary significantly year-to-year (Figure 5-47, Figure 5-50 and Figure 5-53).
- There is significant isotopic uranium load gain in Pond C-2. This may be caused by groundwater with naturally occurring uranium entering Pond C-2 (Figure 5-48, Figure 5-51 and Figure 5-54).

Table 5-15. Pu Load Summary for Terminal Pond C-2: WY97-01.

Water Year	Pu-239,240 (μg)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	14.2	6.8	52%
1998	90.8	12.1	87%
1999	34.1	26.9	21%
2000	67.5	0.0; No C-2 Discharge	100% ^a
2001	10.7	11.0	-3%
Total	217.2	56.8	74%

Notes: ^a No Pond C-2 discharge.

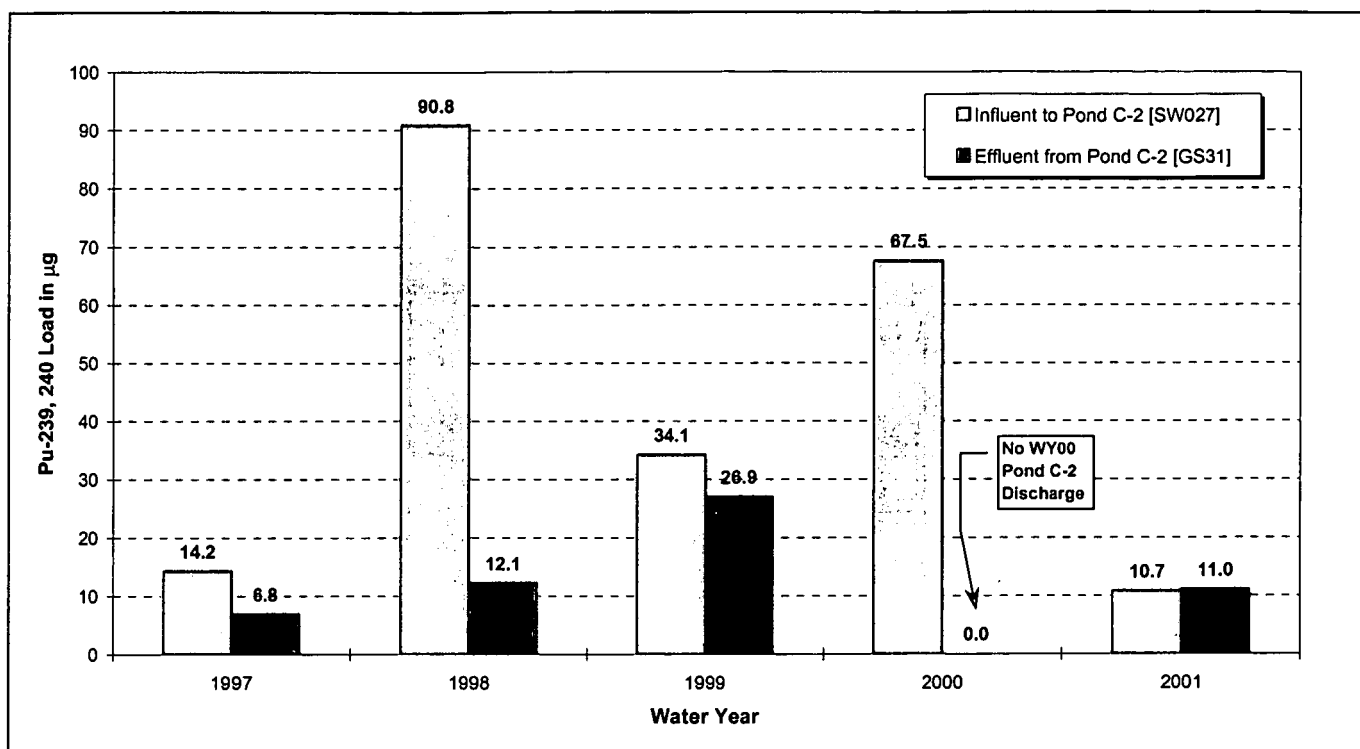


Figure 5-41. Annual Pu Loads for Pond C-2: WY97-01.

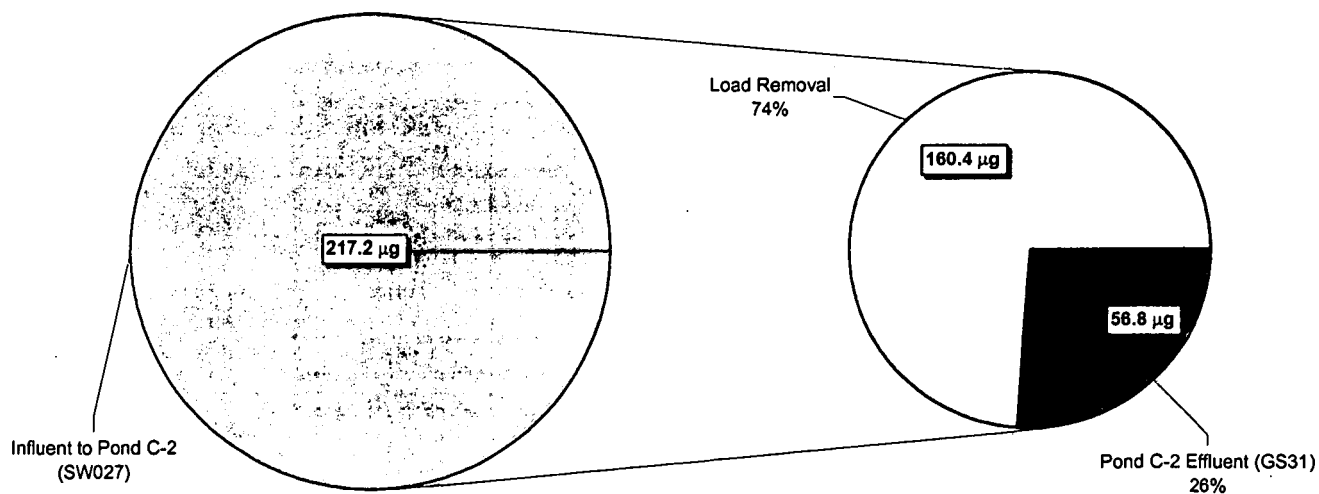


Figure 5-42. Relative Pu Load Totals for Pond C-2: WY97-01.

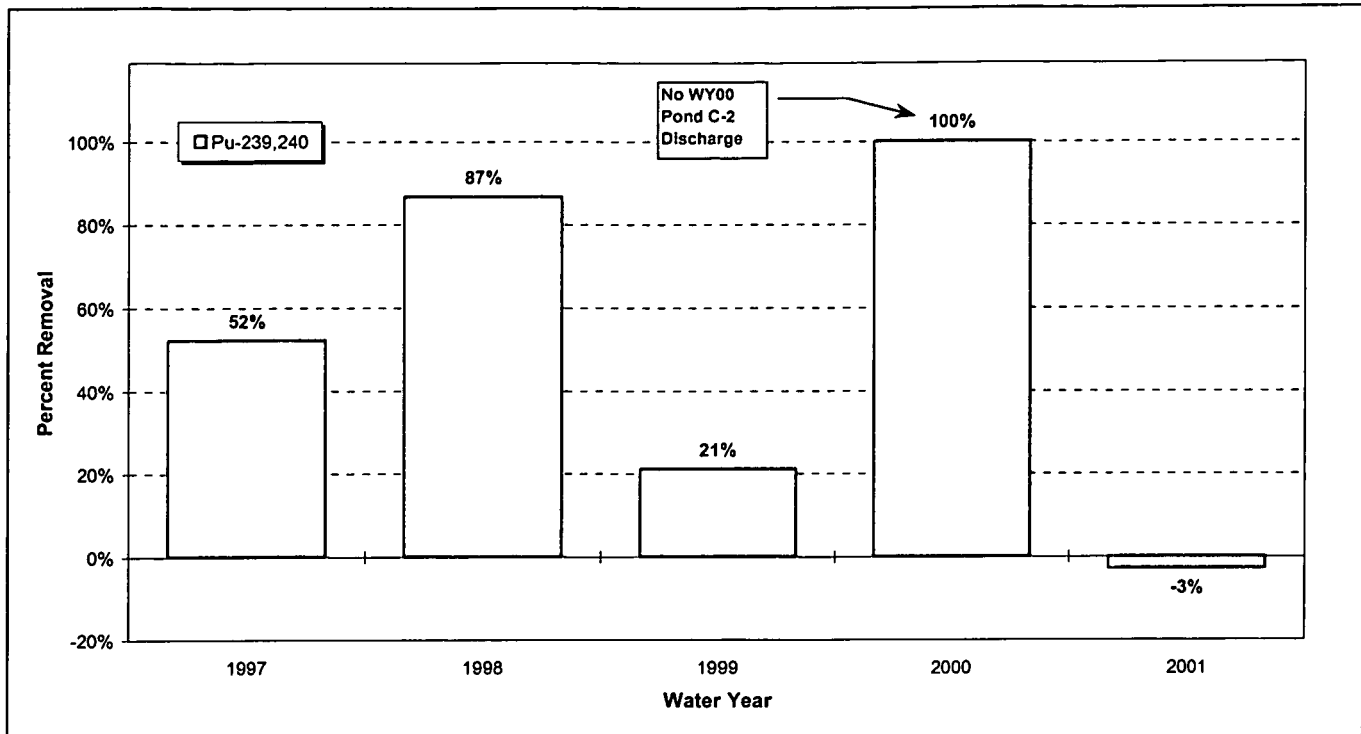


Figure 5-43. Annual Pu Load Removal for Pond C-2: WY97-01.

Table 5-16. Am Load Summary for Terminal Pond C-2: WY97-01.

Water Year	Am-241 (μg)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	0.06	0.04	27%
1998	0.28	0.40	-45%
1999	0.19	0.13	33%
2000	0.25	0.00; No C-2 Discharge	100% ^a
2001	0.05	0.14	-168%
Total	0.83	0.71	14%

Notes: ^a No Pond C-2 discharge.

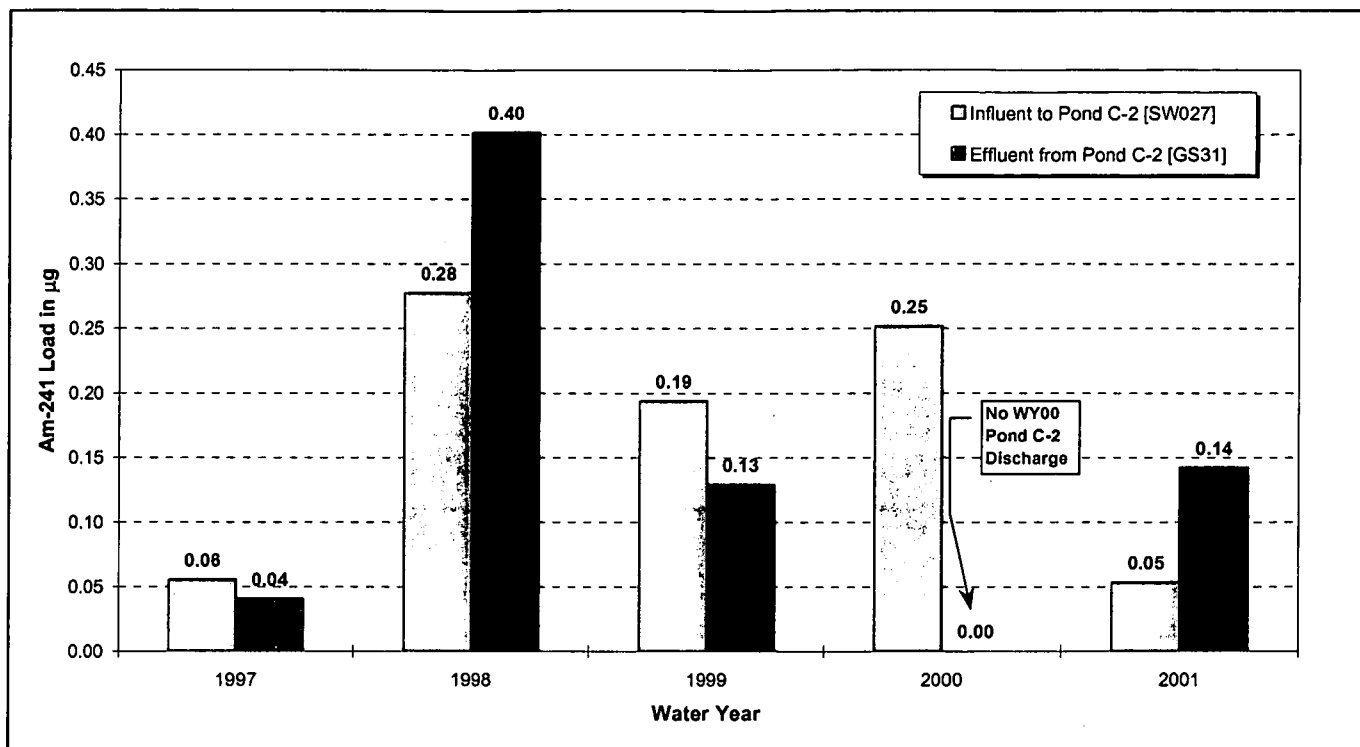


Figure 5-44. Annual Am Loads for Pond C-2: WY97-01.

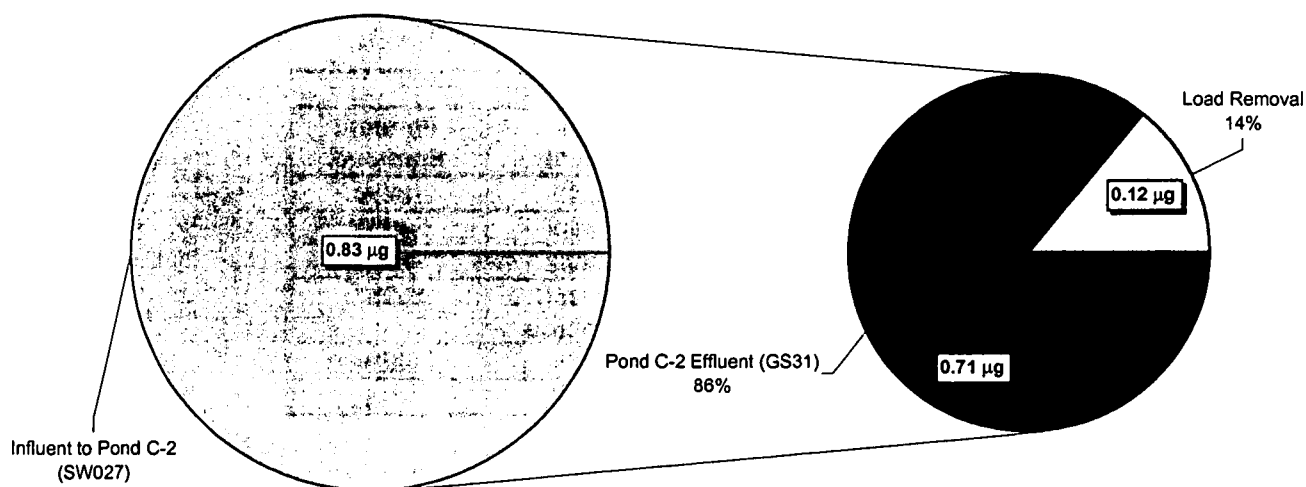


Figure 5-45. Relative Am Load Totals for Pond C-2: WY97-01.

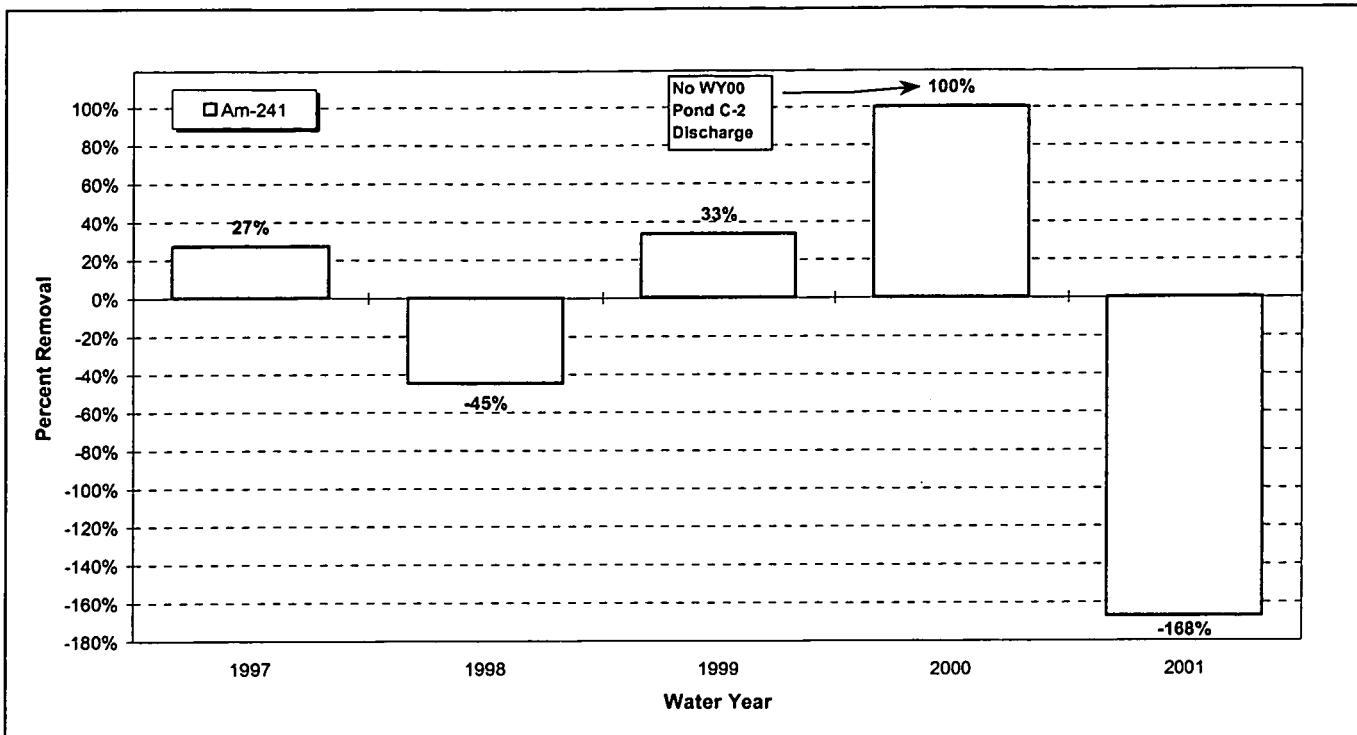


Figure 5-46. Annual Am Load Removal for Pond C-2: WY97-01.

Table 5-17. U-233,234 Load Summary for Terminal Pond C-2: WY97-01.

Water Year	U-233,234 (g)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	0.003	0.005	-92%
1998	0.010	0.014	-46%
1999	0.005	0.009	-91%
2000	0.001	0.00; No C-2 Discharge	100% ^a
2001	0.003	0.004	-26%
Total	0.021	0.031	-49%

Notes: ^a No Pond C-2 discharge.

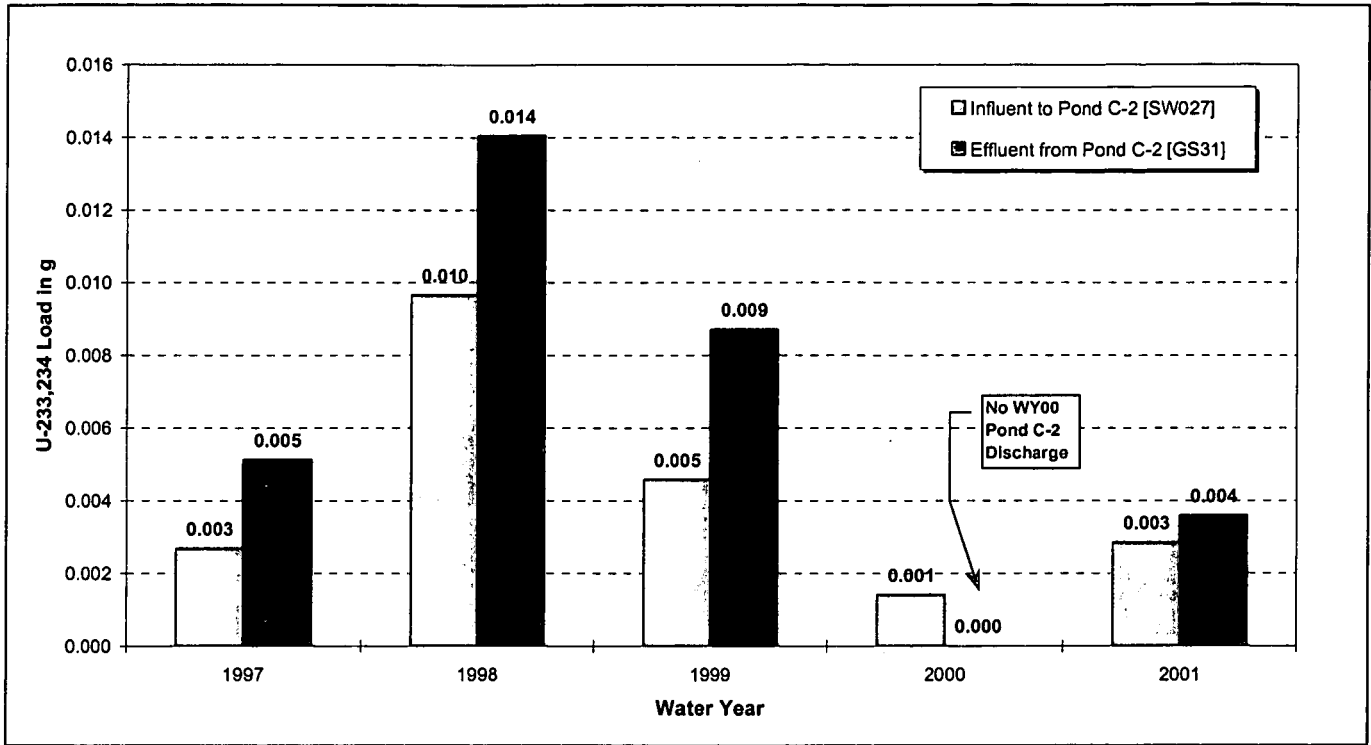


Figure 5-47. Annual U-233,234 Loads for Pond C-2: WY97-01.

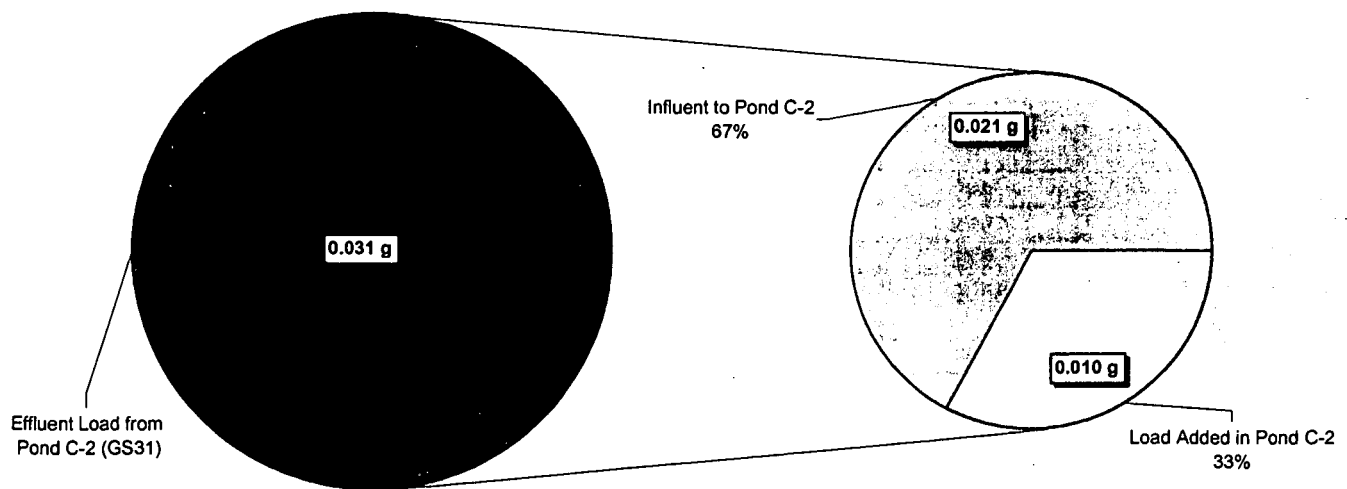


Figure 5-48. Relative U-233,234 Load Totals for Pond C-2: WY97-01.

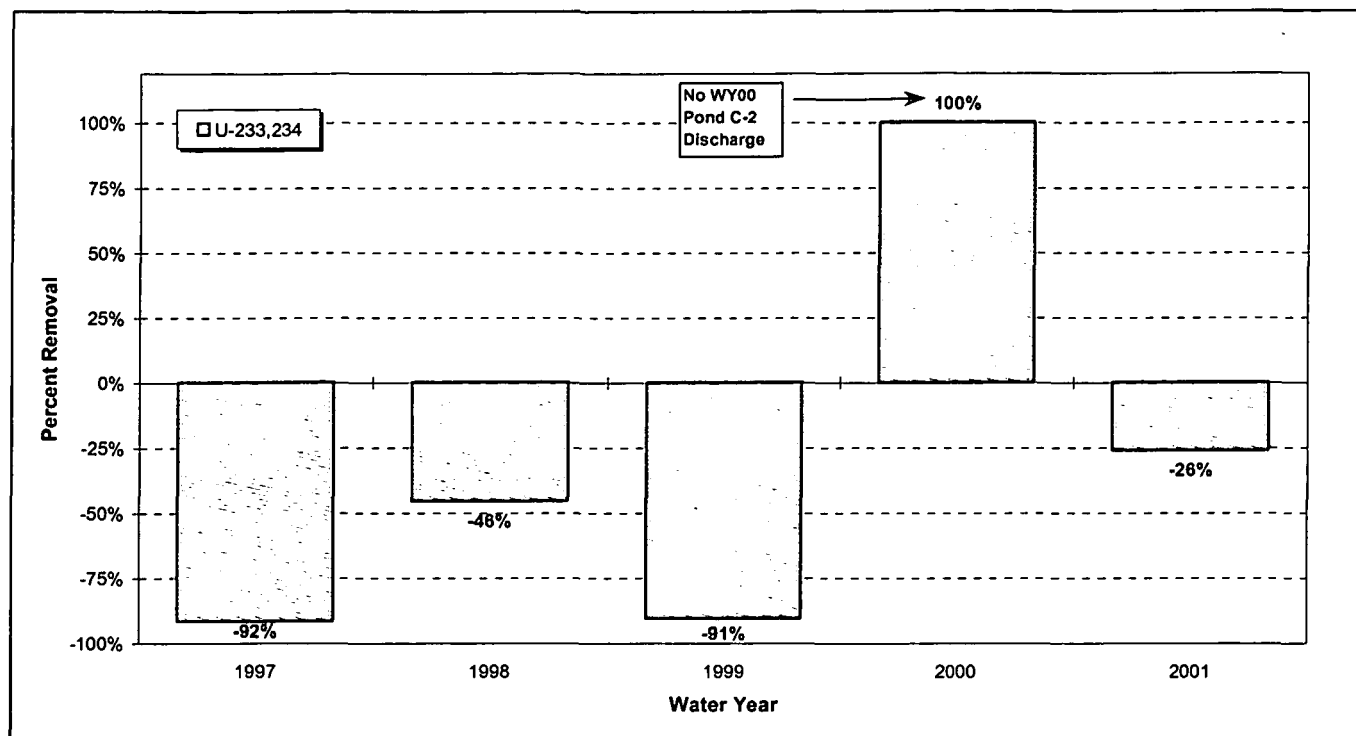


Figure 5-49. Annual U-233,234 Load Removal for Pond C-2: WY97-01.

Table 5-18. U-235 Load Summary for Terminal Pond C-2: WY97-01.

Water Year	U-235 (g)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	0.43	0.75	-75%
1998	1.00	1.09	-9%
1999	0.63	1.66	-164%
2000	0.18	0.00; No C-2 Discharge	100% ^a
2001	0.33	0.34	-1%
Total	2.57	3.84	-49%

Notes: ^a No Pond C-2 discharge.

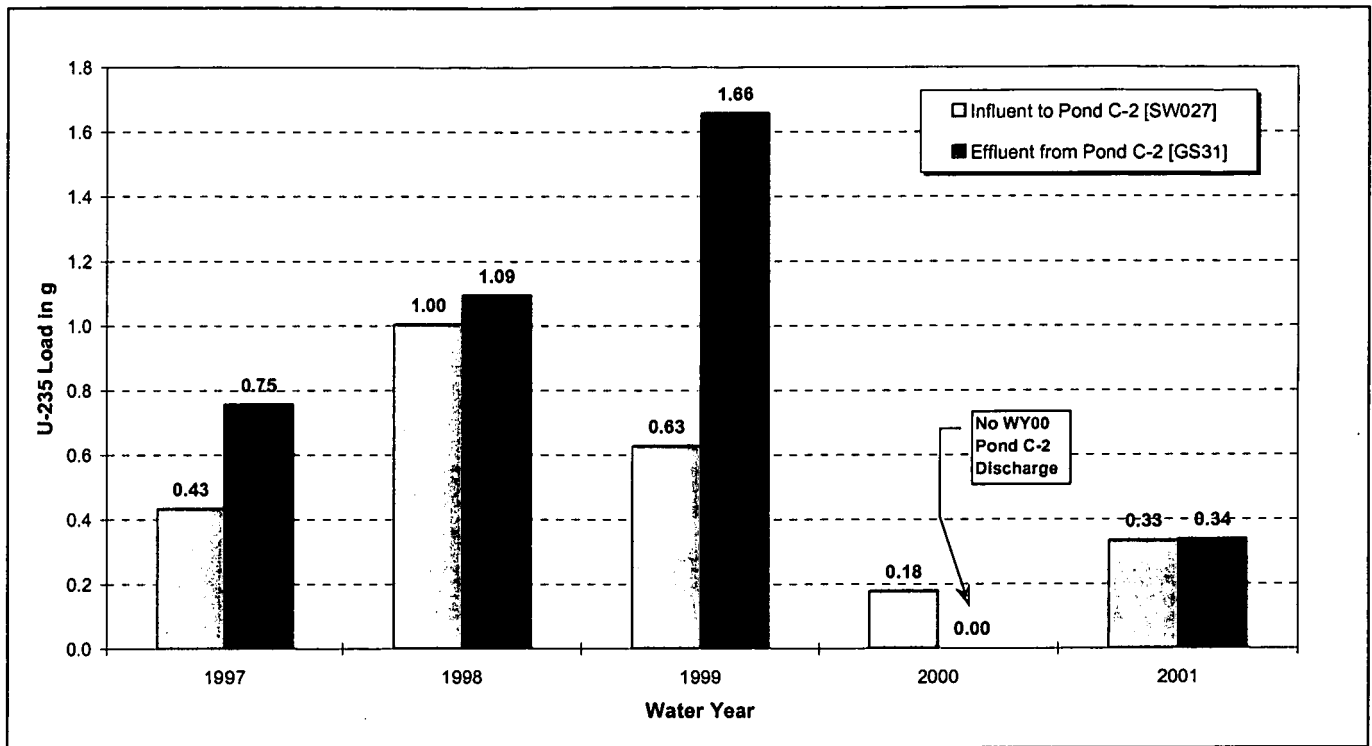


Figure 5-50. Annual U-235 Loads for Pond C-2: WY97-01.

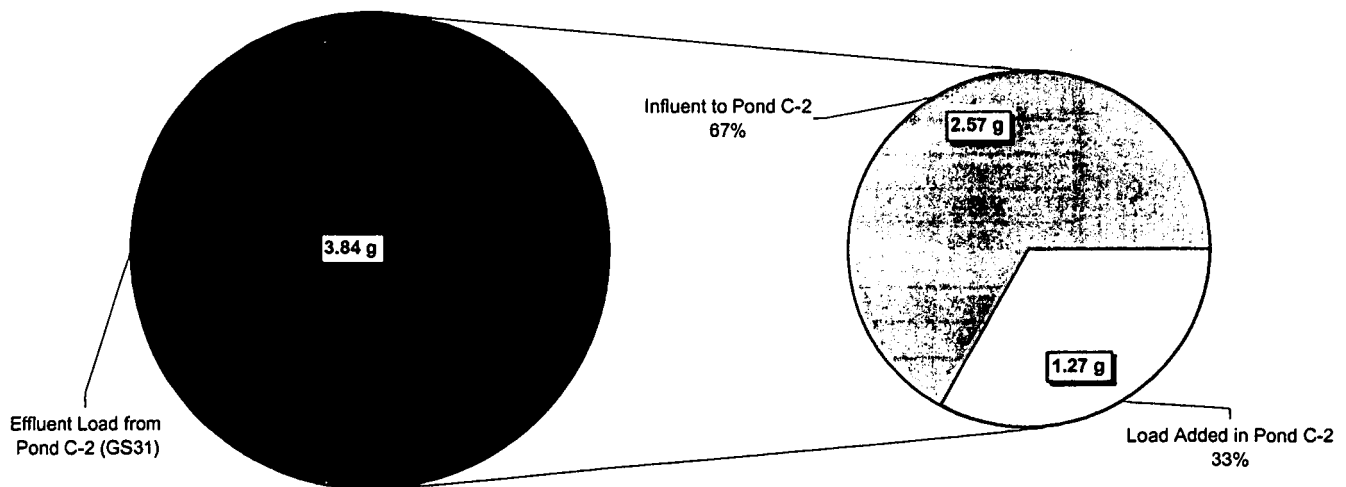


Figure 5-51. Relative U-235 Load Totals for Pond C-2: WY97-01.

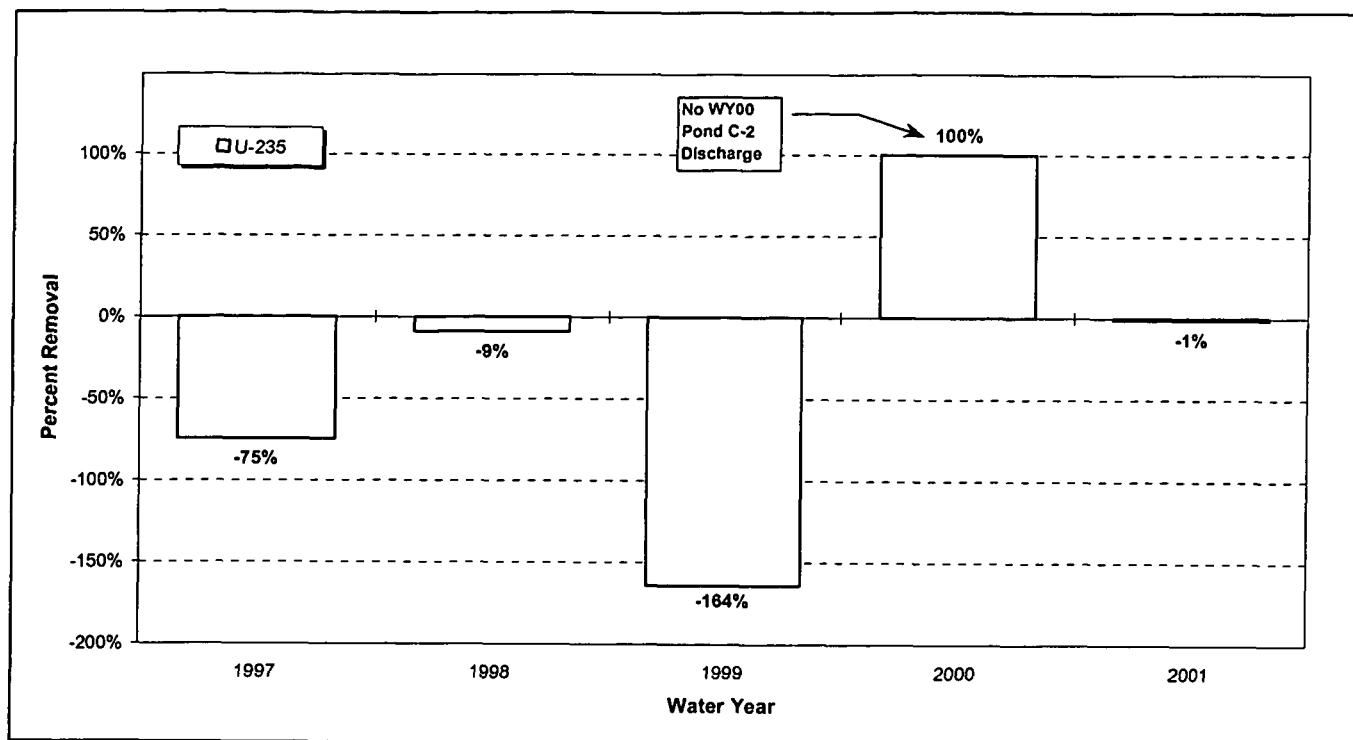


Figure 5-52. Annual U-235 Load Removal for Pond C-2: WY97-01.

Table 5-19. U-238 Load Summary for Terminal Pond C-2: WY97-01.

Water Year	U-238 (g)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	65.2	102.4	-57%
1998	255.0	342.1	-34%
1999	112.4	187.5	-67%
2000	25.7	0.00; No C-2 Discharge	100% ^a
2001	66.1	66.6	-1%
Total	524.3	698.6	-33%

Notes: ^a No Pond C-2 discharge.

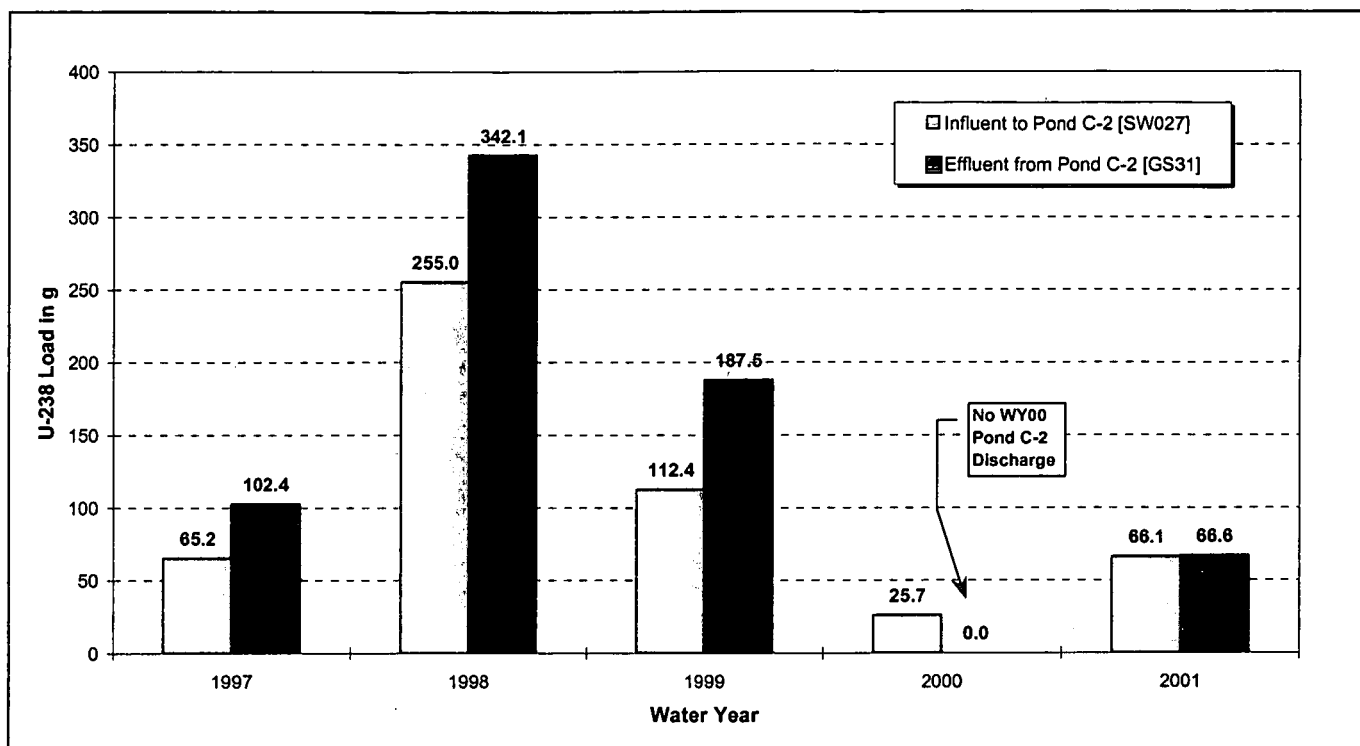


Figure 5-53. Annual U-238 Loads for Pond C-2: WY97-01.

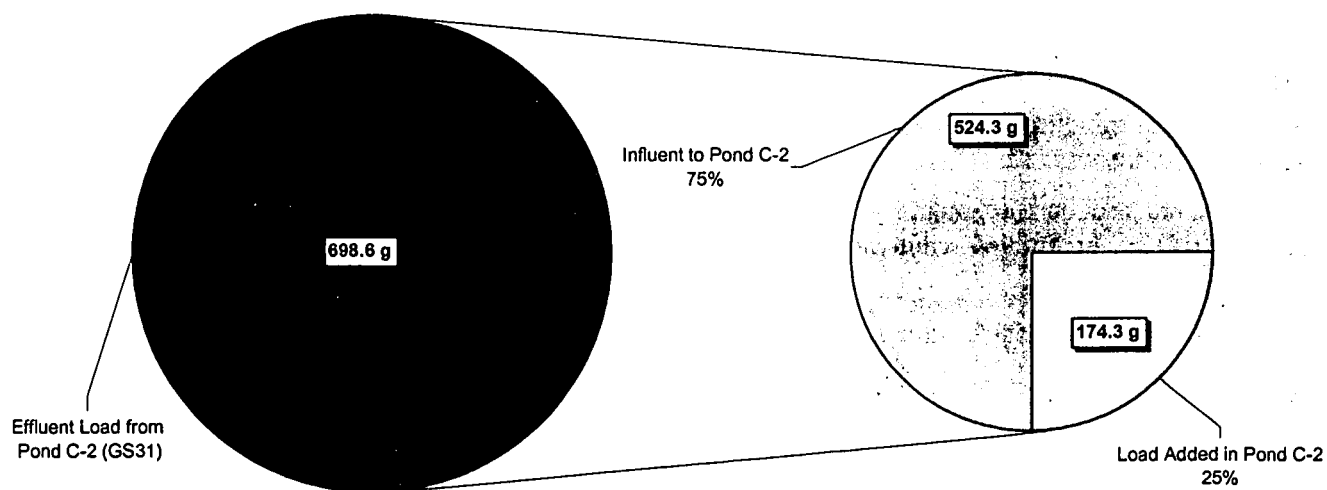


Figure 5-54. Relative U-238 Load Totals for Pond C-2: WY97-01.

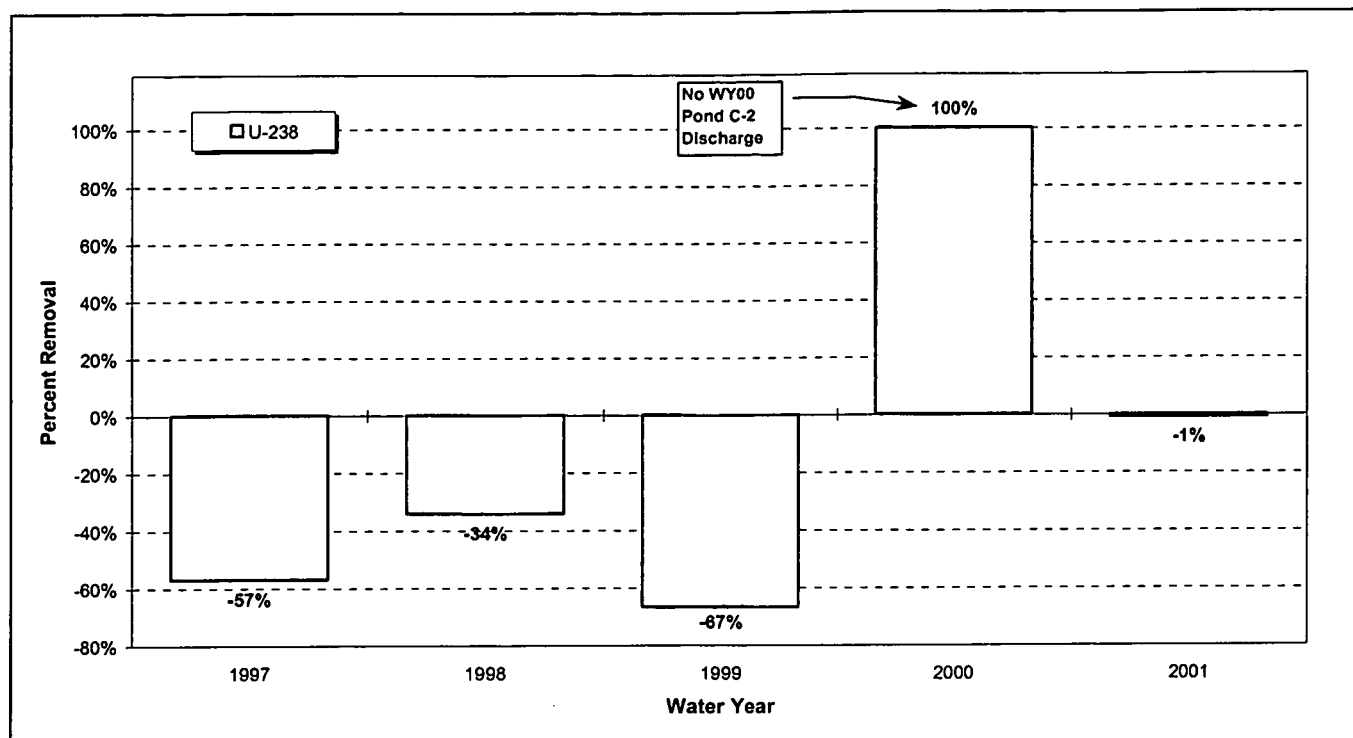


Figure 5-55. Annual U-238 Load Removal for Pond C-2: WY97-01.

5.5 RFCA POINTS OF EVALUATION

5.5.1 Major IA Drainages

This section summarizes the calculated Pu, Am, and isotopic uranium loads for the three major IA drainages: North Walnut Creek (SW093)¹², South Walnut Creek (GS10 and the WWTP), and the SID (SW027). The following points are noted:

- Total Pu load from the IA varies year-to-year and may suggest a decreasing trend (Figure 5-56).
- Total Am load from the IA varies more year-to-year (Figure 5-58). This variation is predominantly the result of Am variability at GS10.
- South Walnut accounts for a majority (71%) of the Pu load from the IA (Figure 5-57). Of the S. Walnut Pu load, GS10 accounts for 96% while the WWTP accounts for the remaining 4%.
- South Walnut accounts for a majority (87%) of the Am load from the IA (Figure 5-59). Of the S. Walnut Am load, GS10 accounts for 96% while the WWTP accounts for the remaining 4%.
- Annual isotopic uranium loads are fairly consistent year-to-year (Figure 5-60, Figure 5-62 and Figure 5-64).
- Isotopic uranium loads are fairly evenly divided (49%-53%) between North and South Walnut Creeks (Figure 5-61, Figure 5-63 and Figure 5-65).

¹² Although SW091 is also a load source to N. Walnut (Figure 3-2), the flow volumes at SW091 are approximately 0.3% of the volumes at SW093. Additionally, SW091 does not collect continuous flow-paced sample to allow for more accurate load calculations. Therefore, SW091 load is not included due to its relative insignificance.

Table 5-20. Industrial Area Pu and Am Loads: WY97-01.

Water Year	Pu-239,-240 (μg)				Am-241 (μg)			
	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	178.7	564.0	13.4	14.2	2.27	11.98	0.44	0.06
1998	70.9	345.3	8.7	90.8	1.38	4.95	0.58	0.28
1999	126.9	306.8	23.2	34.1	1.69	12.55	0.11	0.19
2000	88.5	329.6	18.4	67.5	1.03	14.65	0.33	0.25
2001	44.6	140.9	9.1	10.7	0.65	2.71	0.26	0.05
Total	509.5	1686.6	72.8	217.2	7.02	46.84	1.71	0.83

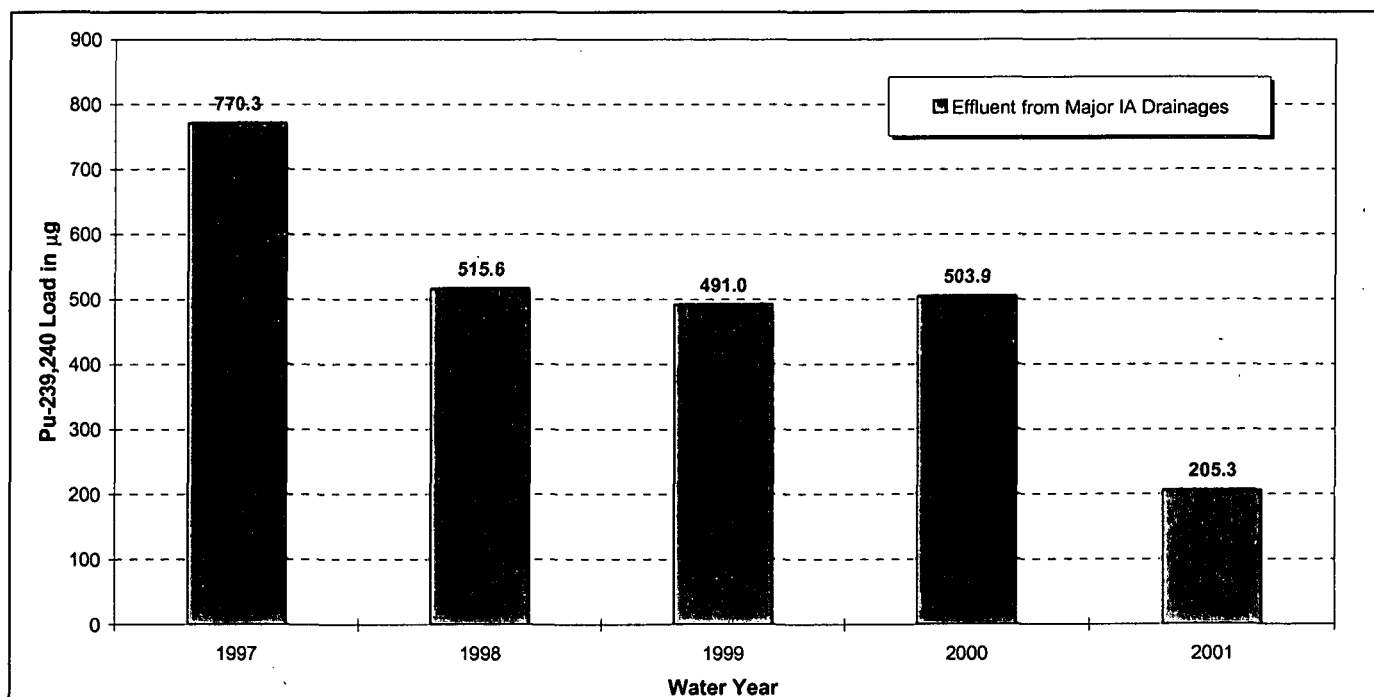


Figure 5-56. Combined Annual Pu Loads from Major IA Drainages and WWTP: WY97-01.

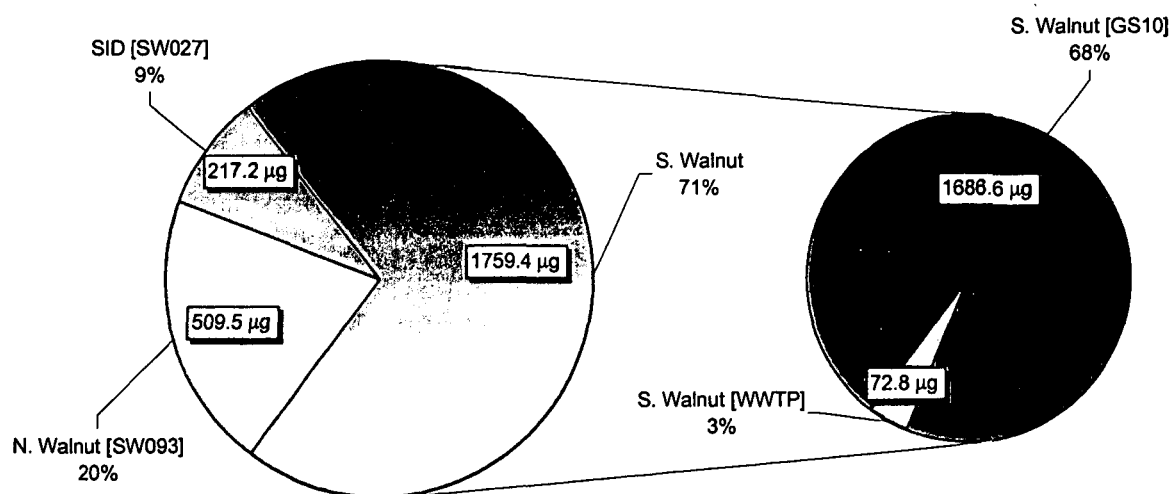


Figure 5-57. Relative Pu Load Totals from Major IA Drainages and WWTP: WY97-01.

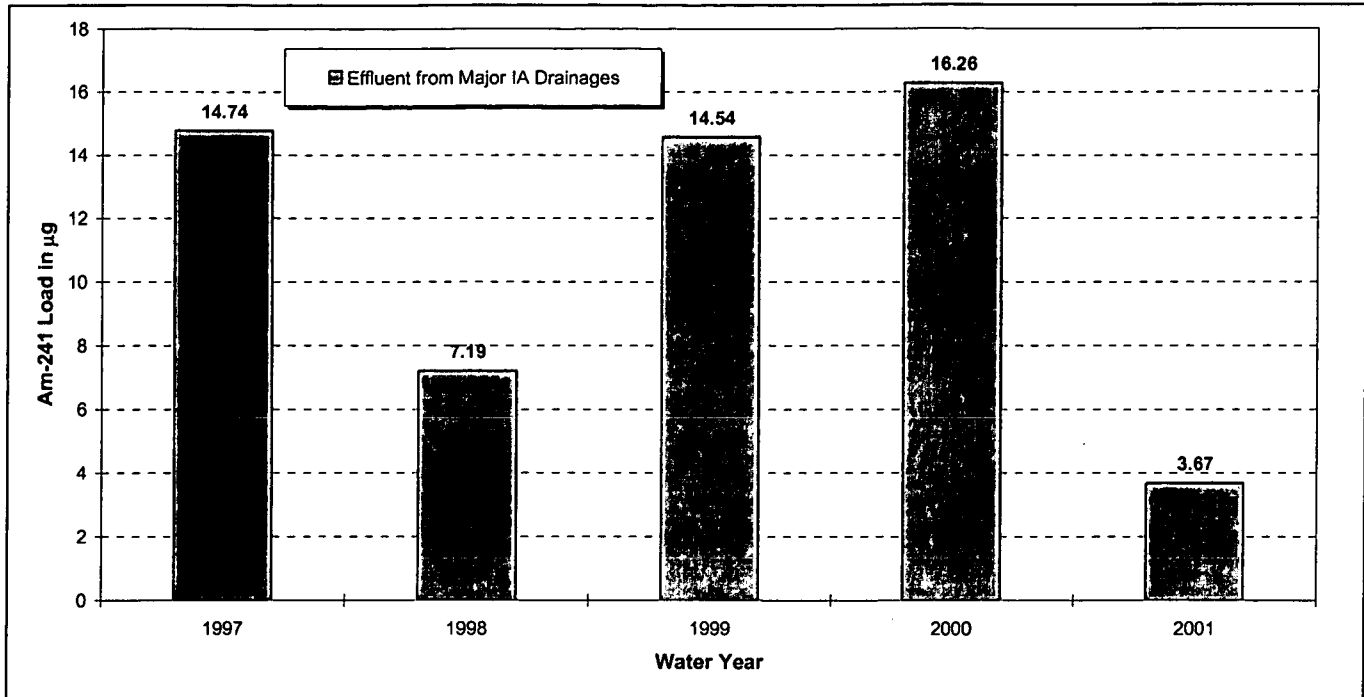


Figure 5-58. Annual Am Loads from Major IA Drainages and WWTP: WY97-01.

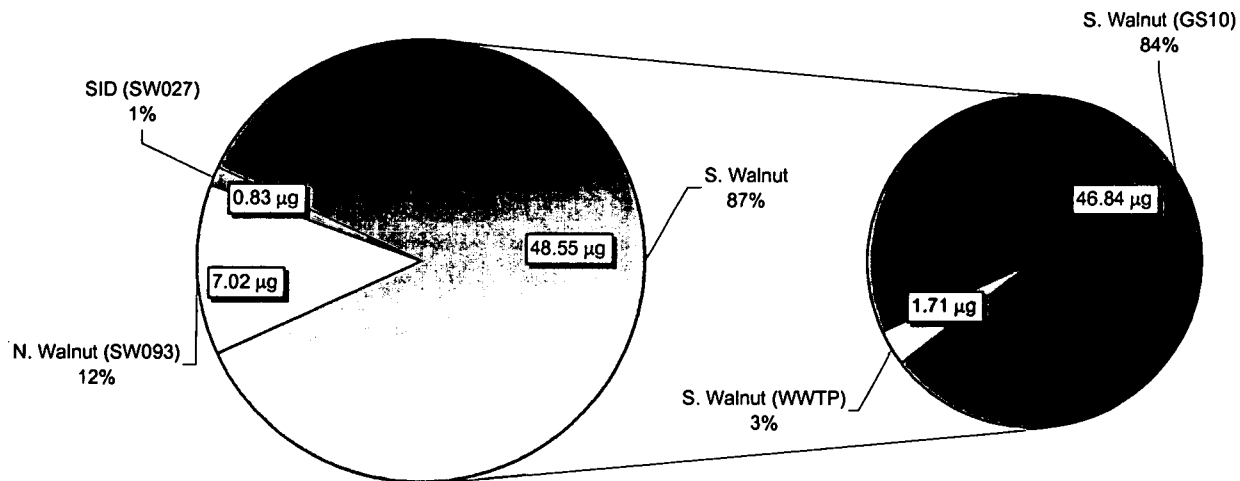


Figure 5-59. Relative Am Load Totals from Major IA Drainages and WWTP: WY97-01.

Table 5-21. Industrial Area U-233,234 Loads: WY97-01.

Water Year	U-233,234 (g)			
	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	0.033	0.031	0.013	0.003
1998	0.041	0.039	0.023	0.010
1999	0.033	0.030	0.005	0.005
2000	0.026	0.022	0.006	0.001
2001	0.035	0.030	0.013	0.003
Total	0.170	0.151	0.060	0.021

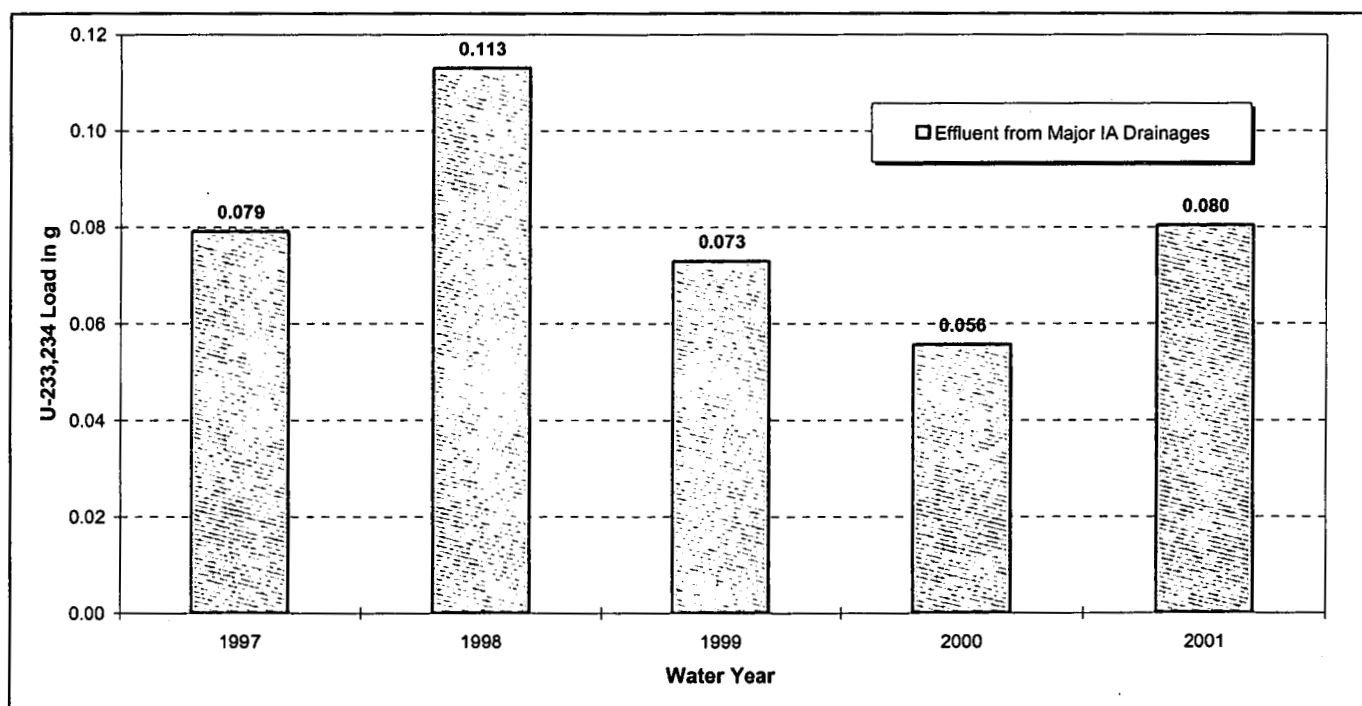


Figure 5-60. Annual U-233,234 Loads from Major IA Drainages and WWTP: WY97-01.

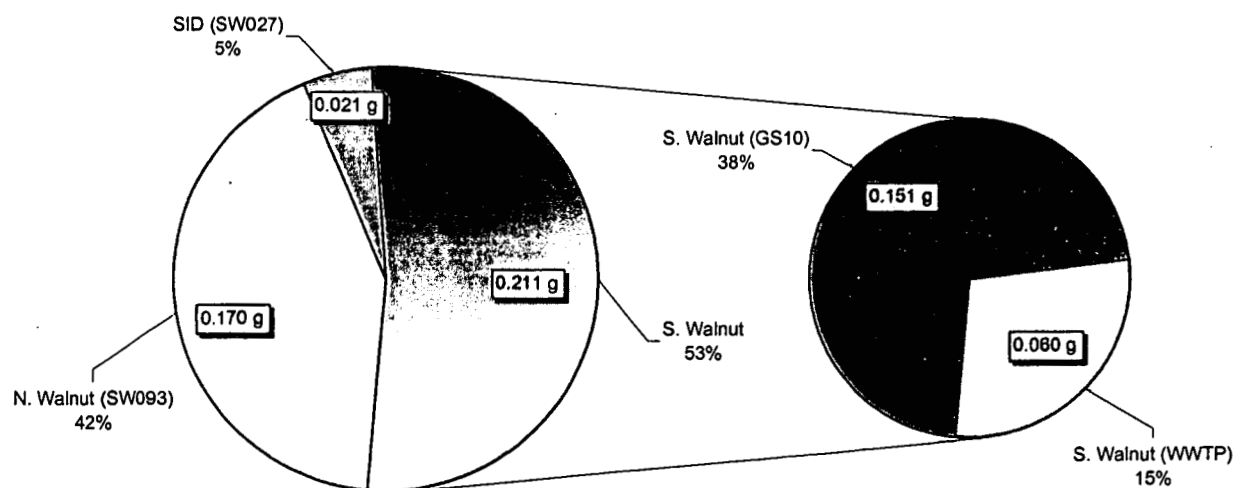


Figure 5-61. Relative U-233,234 Load Totals from Major IA Drainages and WWTP: WY97-01.

Table 5-22. Industrial Area U-235 Loads: WY97-01.

Water Year	U-235 (g)			
	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	4.77	4.05	2.57	0.43
1998	5.32	4.48	2.09	1.00
1999	3.53	3.57	1.21	0.63
2000	3.36	2.64	0.71	0.18
2001	3.37	3.04	1.62	0.33
Total	20.35	17.79	8.19	2.57

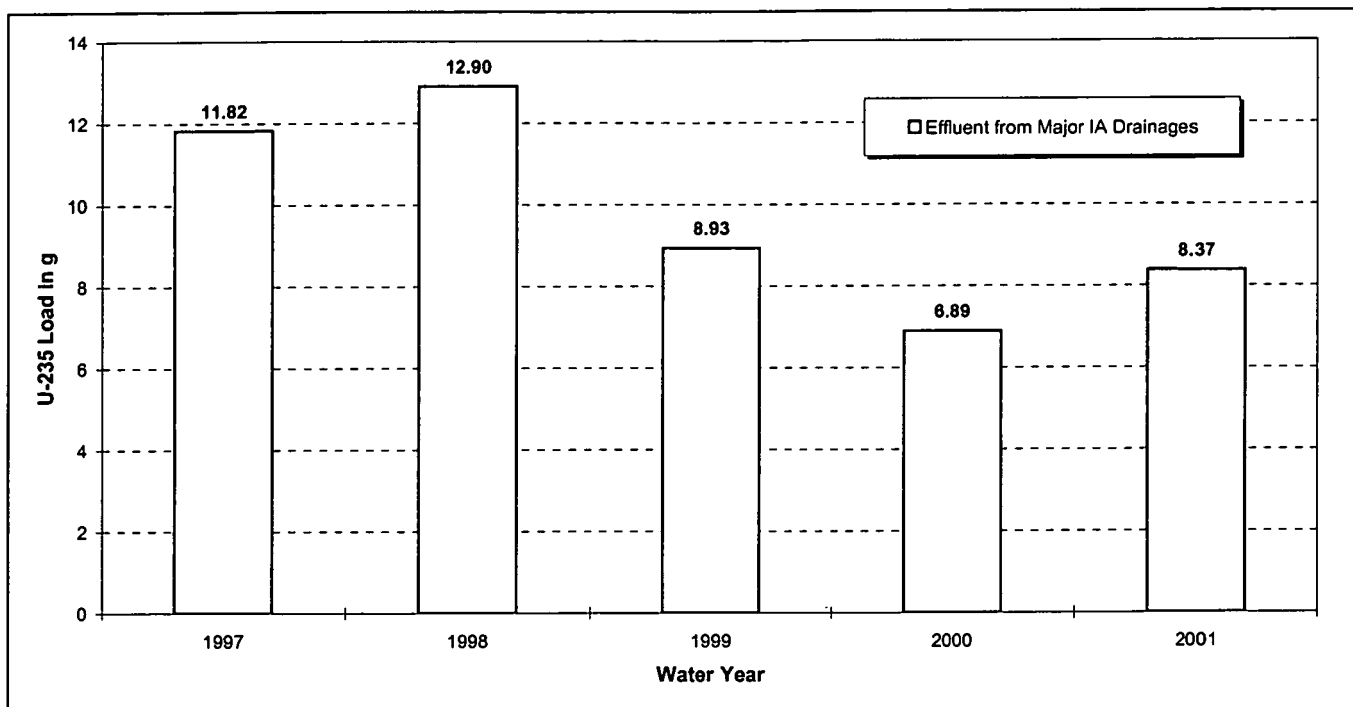


Figure 5-62. Annual U-235 Loads from Major IA Drainages and WWTP: WY97-01.

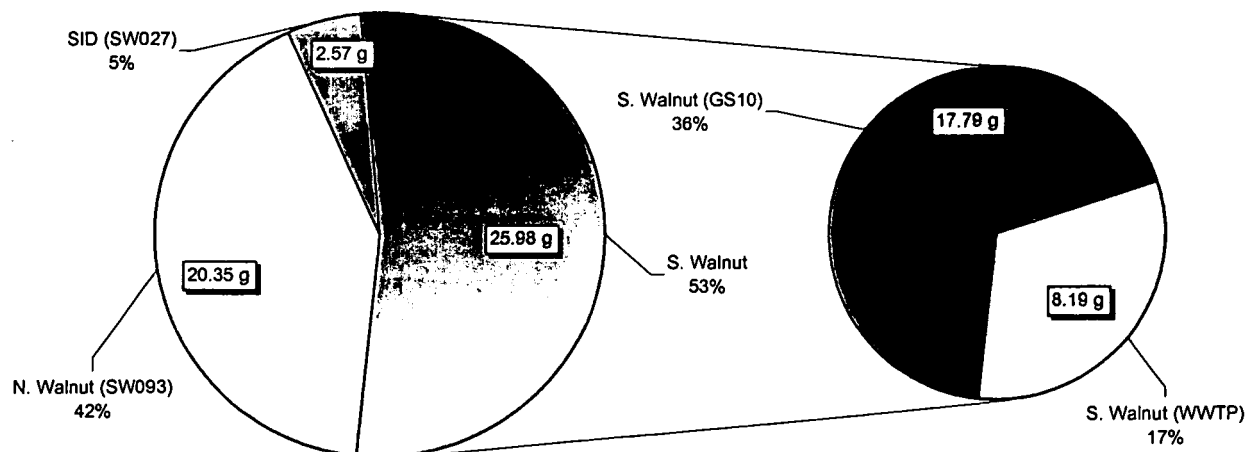


Figure 5-63. Relative U-235 Load Totals from Major IA Drainages and WWTP: WY97-01.

Table 5-23. Industrial Area U-238 Loads: WY97-01.

Water Year	U-238 (g)			
	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	778.3	555.6	215.3	65.2
1998	875.5	678.9	514.1	255.0
1999	676.7	573.8	106.4	112.4
2000	530.5	396.0	108.9	25.7
2001	637.7	514.6	252.4	66.1
Total	3498.9	2718.9	1197.1	524.3

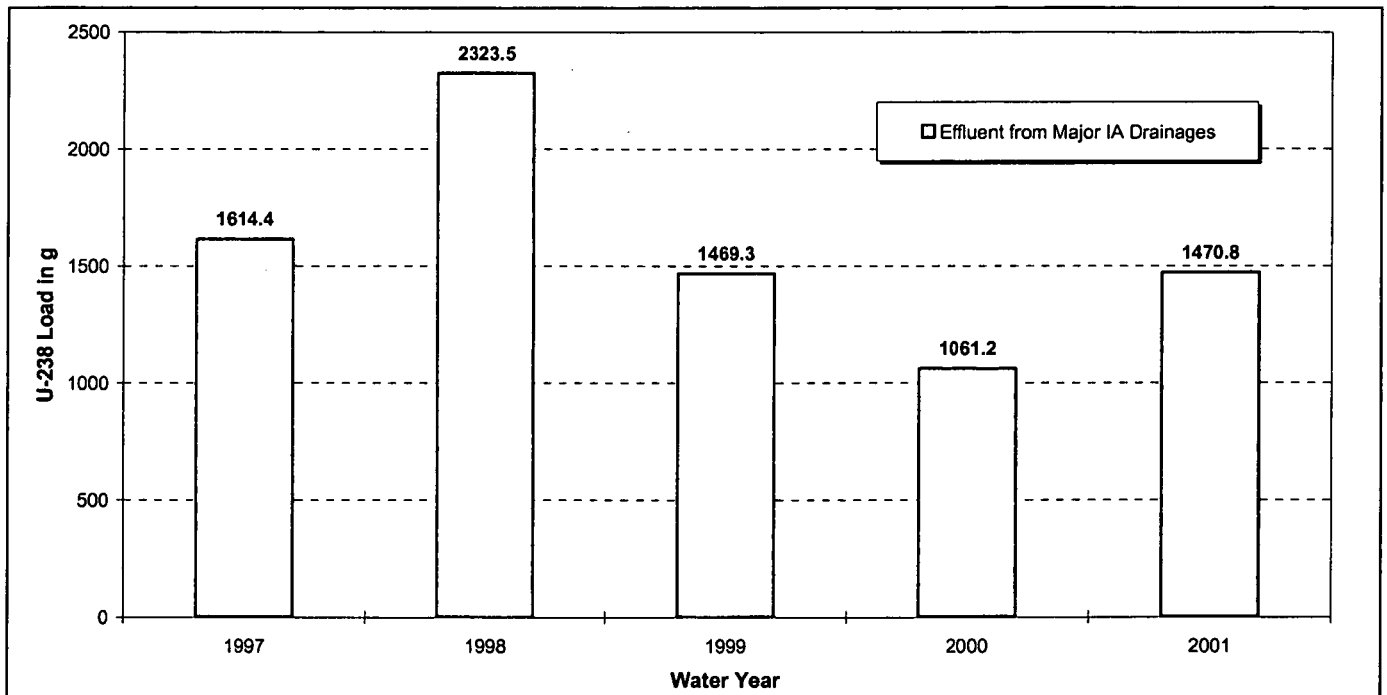


Figure 5-64. Annual U-238 Loads from Major IA Drainages and WWTP: WY97-01.

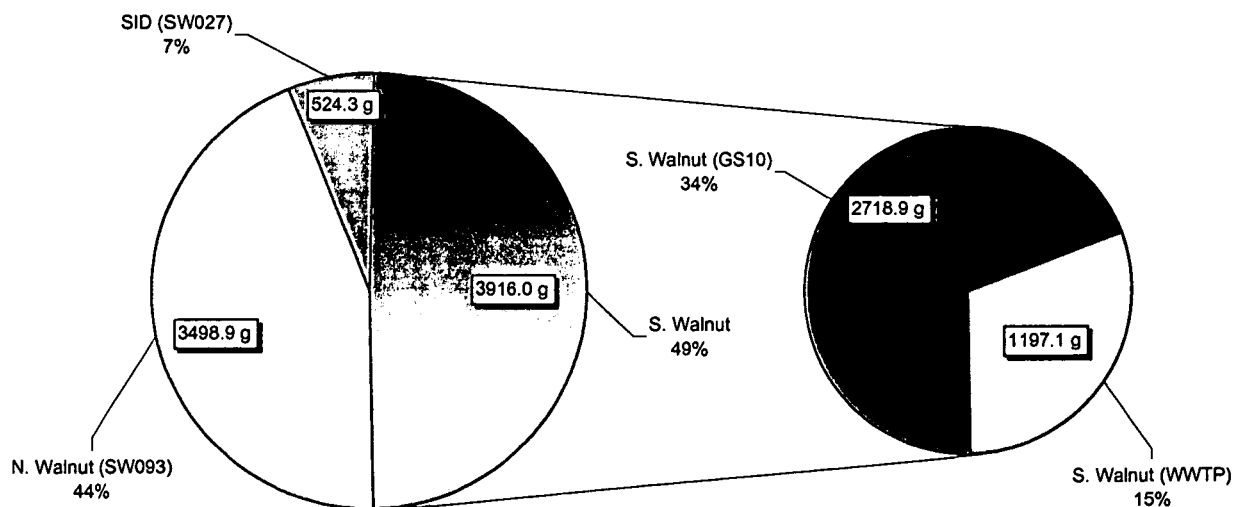


Figure 5-65. Relative U-238 Load Totals from Major IA Drainages and WWTP: WY97-01.

5.5.2 North Walnut Creek at SW093

This section summarizes the calculated Pu, Am, and isotopic uranium loads for North Walnut Creek at SW093. The following points are noted:

- Annual Pu loads at SW093 vary significantly year-to-year (Figure 5-66).
- Annual Am loads at SW093 are more consistent year-to-year (Figure 5-66).
- Annual isotopic uranium loads are fairly consistent year-to-year (Figure 5-67).

Table 5-24. Actinide Loads in N. Walnut Cr. at SW093: WY97-01.

Water Year	Pu-239,240 [μg]	Am-241 [μg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	178.7	2.27	0.033	4.77	778.3
1998	70.9	1.38	0.041	5.32	875.5
1999	126.9	1.69	0.033	3.53	676.7
2000	88.5	1.03	0.026	3.36	530.5
2001	44.6	0.65	0.035	3.37	637.7
Total	509.5	7.02	0.170	20.35	3498.9

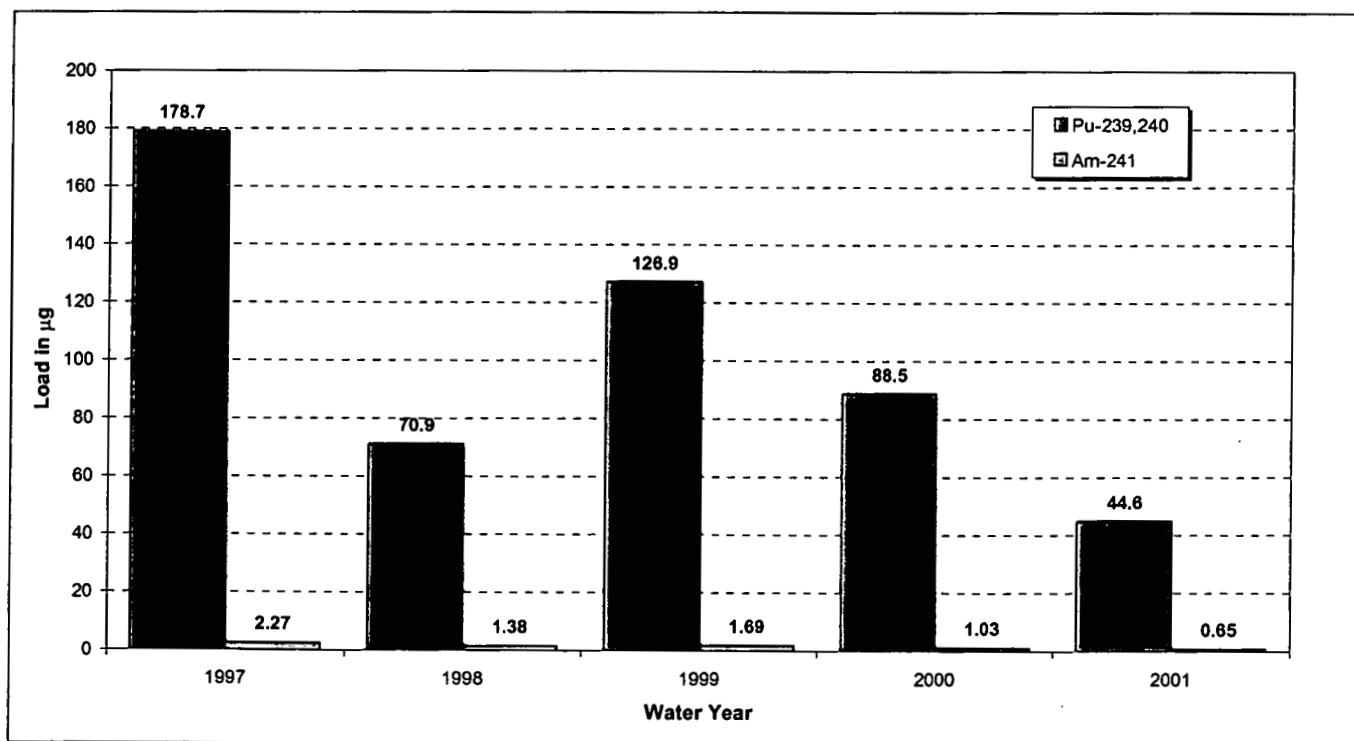


Figure 5-66. Annual Pu and Am Loads at SW093: WY97-01.

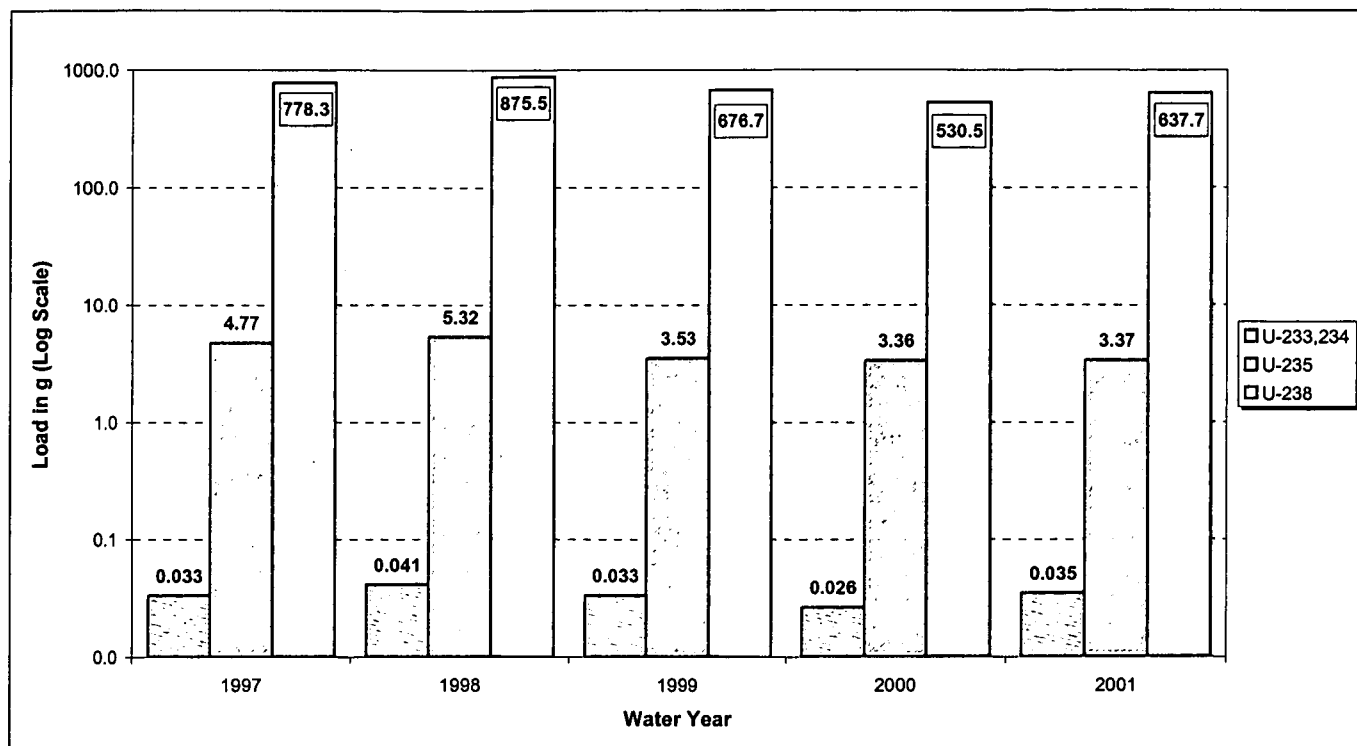


Figure 5-67. Annual Isotopic Uranium Loads at SW093: WY97-01.

5.5.3 South Walnut Creek at GS10

This section summarizes the calculated Pu, Am, and isotopic uranium loads for South Walnut Creek at GS10. The following points are noted:

- Annual Pu loads at GS10 vary year-to-year (Figure 5-68).
- Annual Am loads at GS10 are more variable year-to-year (Figure 5-68).
- Annual isotopic uranium loads are fairly consistent year-to-year (Figure 5-69).

Table 5-25. Actinide Loads in S. Walnut Cr. at GS10: WY97-01.

Water Year	Pu-239,240 [μg]	Am-241 [μg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	564.0	11.98	0.031	4.05	555.6
1998	345.3	4.95	0.039	4.48	678.9
1999	306.8	12.55	0.030	3.57	573.8
2000	329.6	14.65	0.022	2.64	396.0
2001	140.9	2.71	0.030	3.04	514.6
Total	1686.6	46.84	0.151	17.79	2718.9

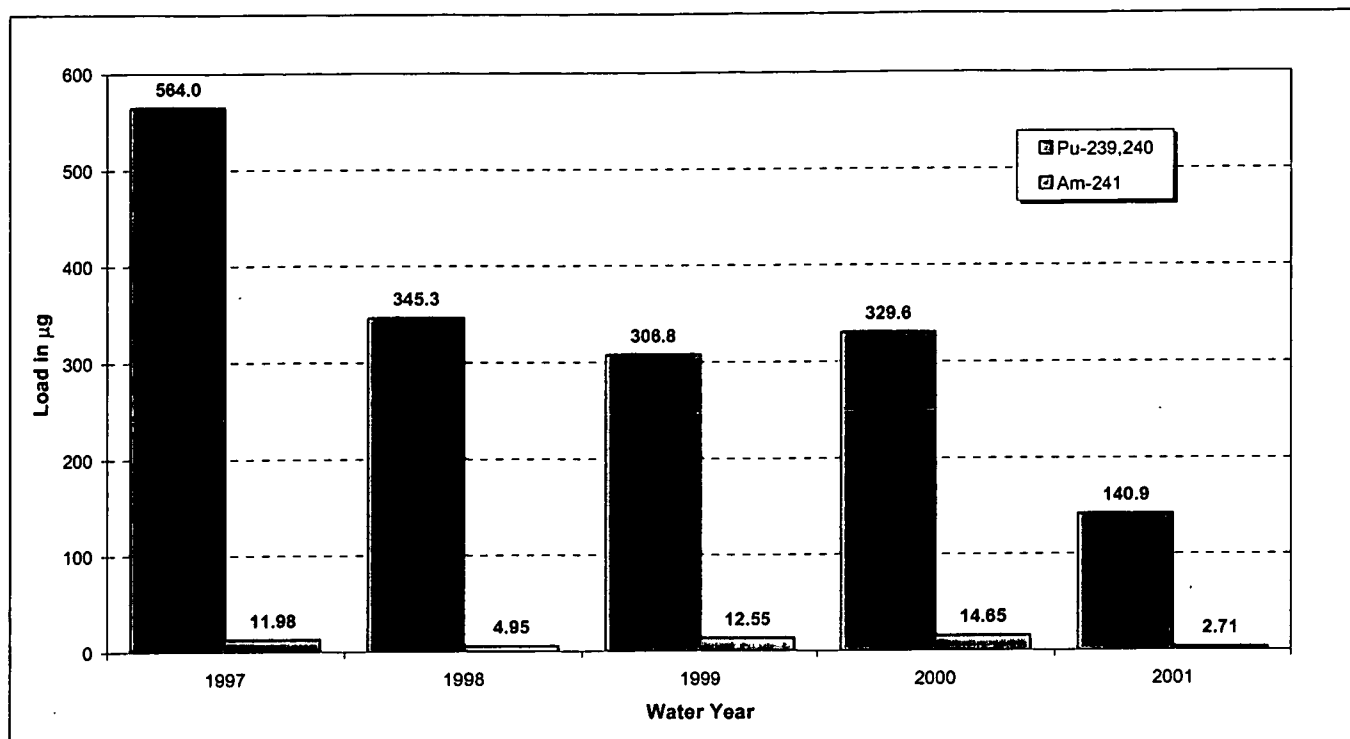


Figure 5-68. Annual Pu and Am Loads at GS10: WY97-01.

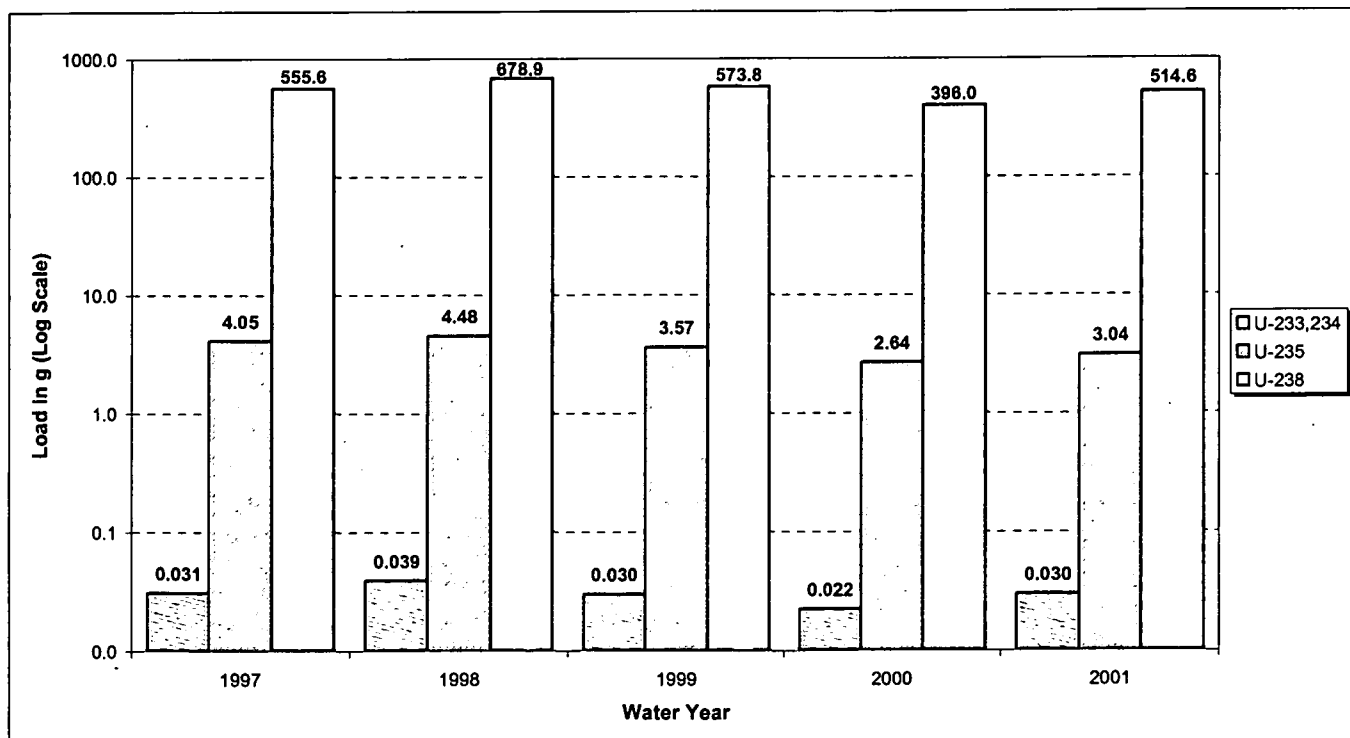


Figure 5-69. Annual Isotopic Uranium Loads at GS10: WY97-01.

5.5.4 South Walnut Creek at the WWTP

This section summarizes the calculated Pu, Am, and isotopic uranium loads for South Walnut Creek at the WWTP. The following points are noted:

- Annual Pu loads at the WWTP vary year-to-year (Figure 5-70).
- Annual Am loads at the WWTP also vary year-to-year (Figure 5-70).
- Annual isotopic uranium loads are also variable year-to-year (Figure 5-71).

Table 5-26. Actinide Loads in S. Walnut Cr. at the WWTP: WY97-01.

Water Year	Pu-239,240 [μg]	Am-241 [μg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	13.4	0.44	0.013	2.57	215.3
1998	8.7	0.58	0.023	2.09	514.1
1999	23.2	0.11	0.005	1.21	106.4
2000	18.4	0.33	0.006	0.71	108.9
2001	9.1	0.26	0.013	1.62	252.4
Total	72.8	1.71	0.060	8.19	1197.1

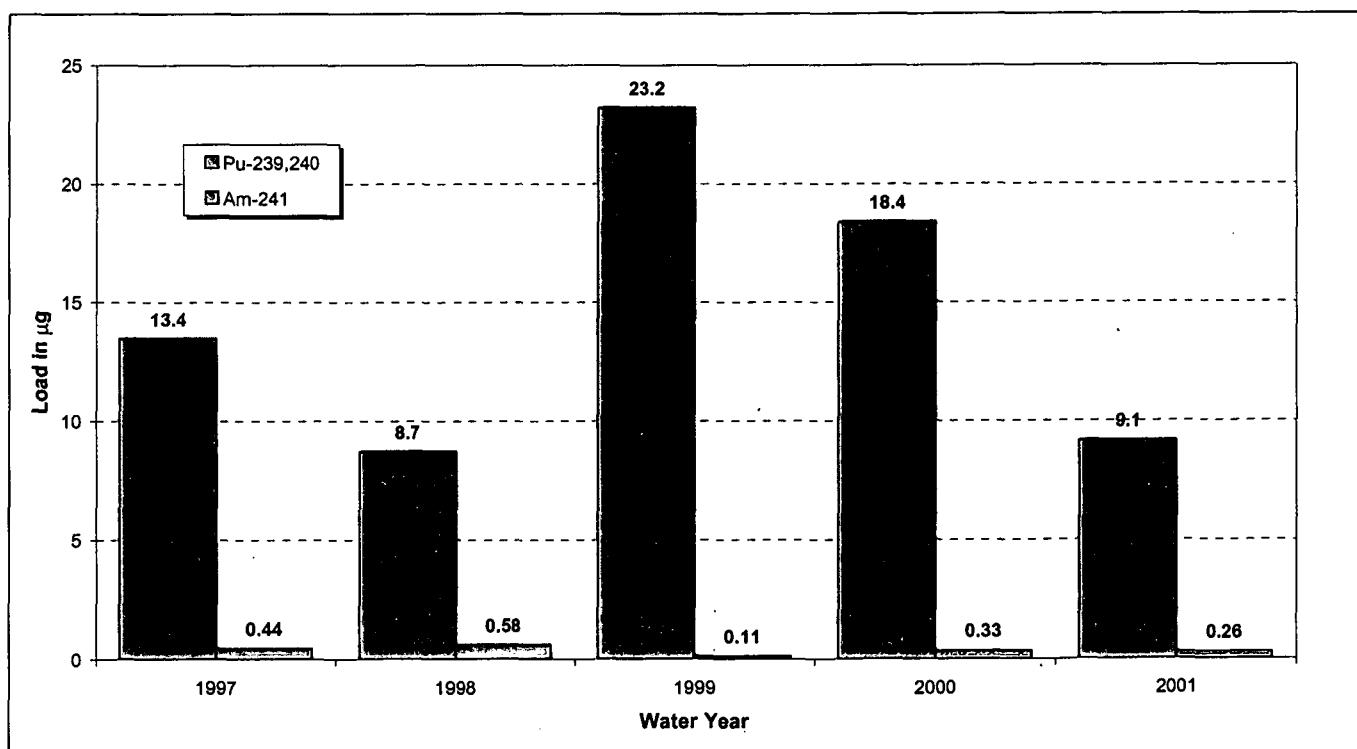


Figure 5-70. Annual Pu and Am Loads at the WWTP: WY97-01.

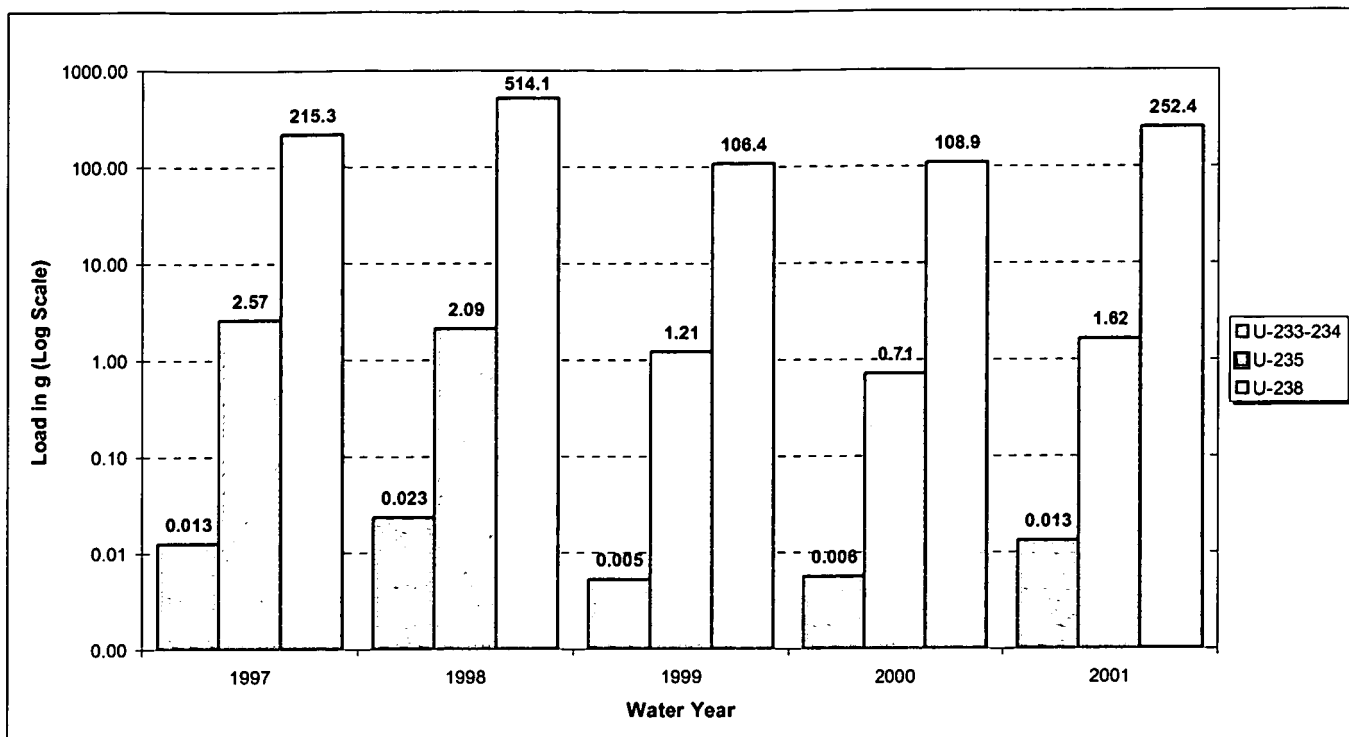


Figure 5-71. Annual Isotopic Uranium Loads at the WWTP: WY97-01.

5.5.5 South Interceptor Ditch at SW027

This section summarizes the calculated Pu, Am, and isotopic uranium loads for the SID at SW027. The following points are noted:

- Annual Pu loads at SW027 vary significantly year-to-year (Figure 5-72).
- Annual Am loads at SW027 also vary significantly year-to-year (Figure 5-72).
- Annual isotopic uranium loads also vary significantly year-to-year (Figure 5-73).

Table 5-27. Actinide Loads in the S. Interceptor Ditch at SW027: WY97-01.

Water Year	Pu-239,240 [μg]	Am-241 [μg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	14.2	0.06	0.003	0.43	65.2
1998	90.8	0.28	0.010	1.00	255.0
1999	34.1	0.19	0.005	0.63	112.4
2000	67.5	0.25	0.001	0.18	25.7
2001	10.7	0.05	0.003	0.33	66.1
Total	217.2	0.83	0.021	2.57	524.3

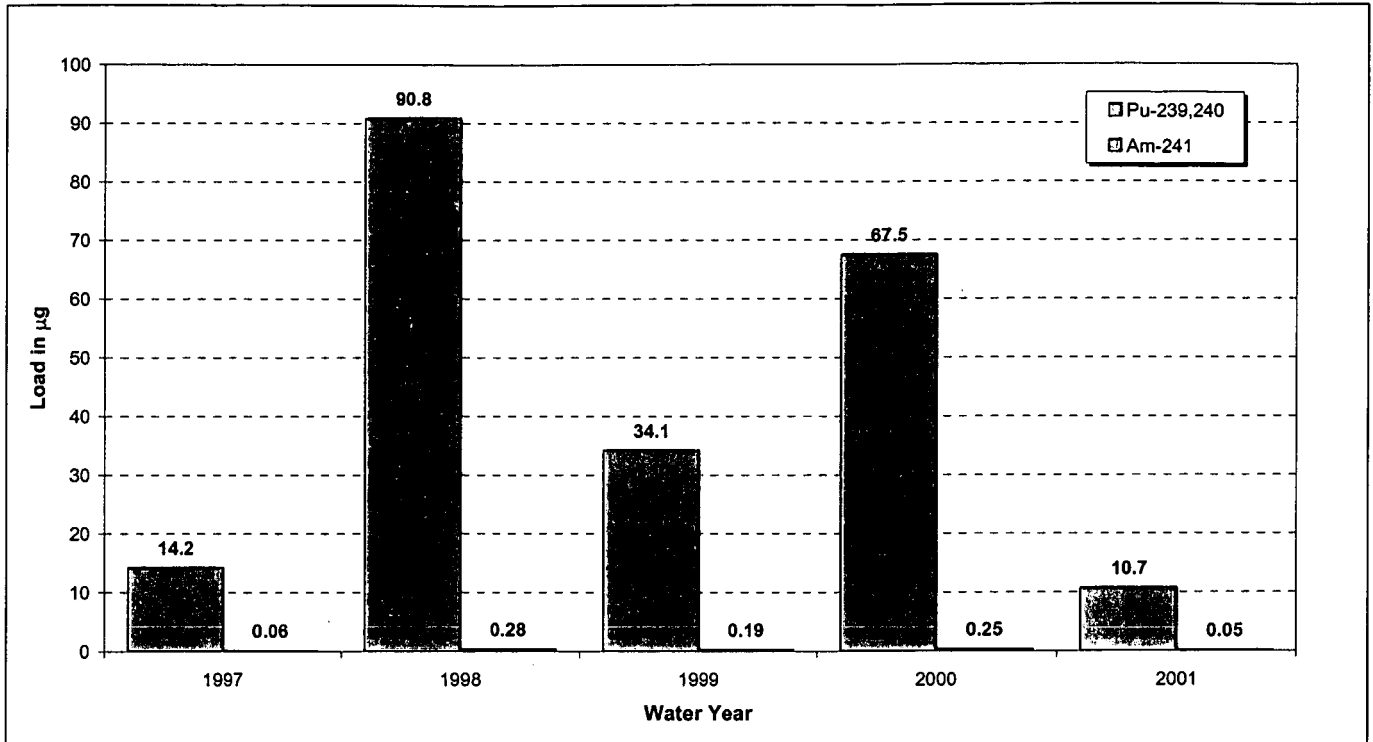


Figure 5-72. Annual Pu and Am Loads at SW027: WY97-01.

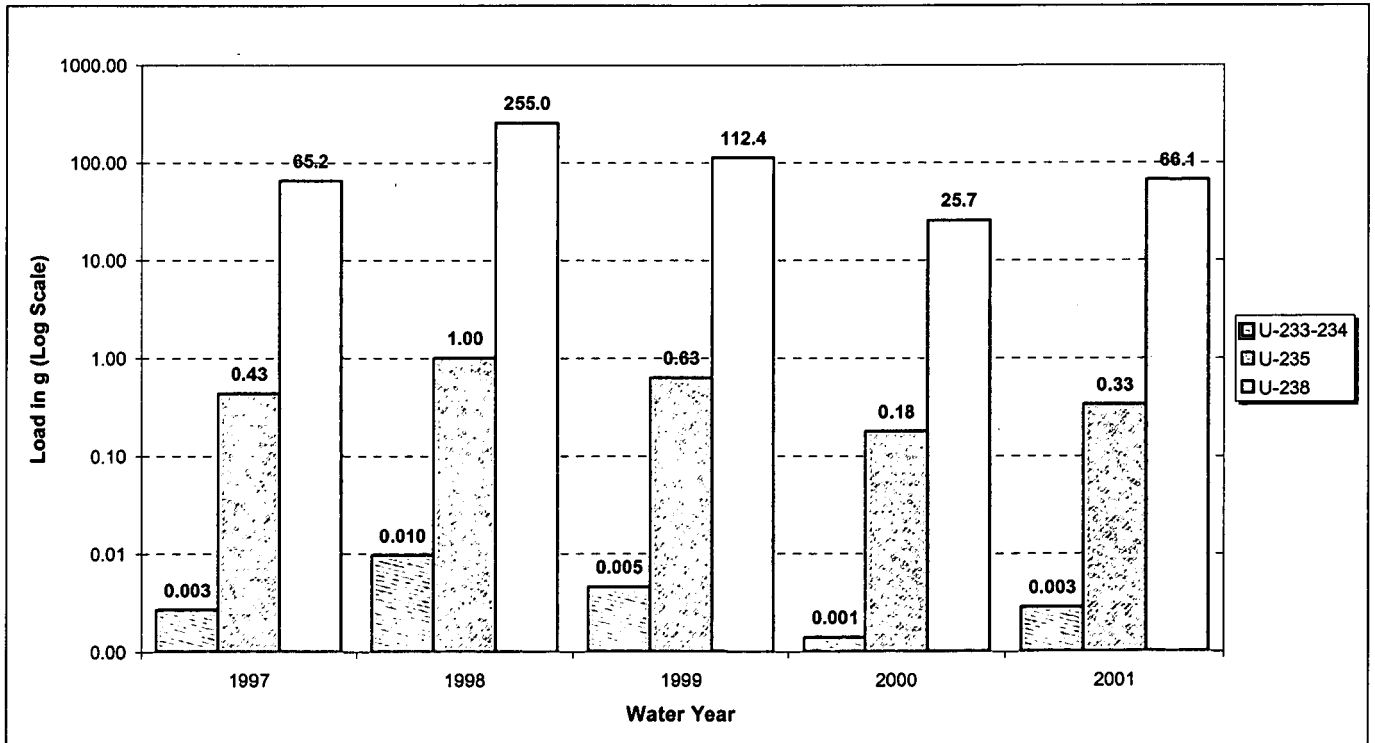


Figure 5-73. Annual Isotopic Uranium Loads at SW027: WY97-01.

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6. SOURCE LOCATION MONITORING

As used in this section a "source" is a contaminant source. The term "new source", as used in this section, means any source that has not previously been located, halted, mitigated, quantified, or corrected.

When new contaminant sources are detected by surface-water monitoring at a New Source Detection location, Point of Evaluation, or Point of Compliance, or in a downstream reservoir, additional monitoring may be required to identify¹³ the source and evaluate for corrective actions pursuant to the RFCA Action Level Framework (ALF). The Source Location monitoring objective is intended to locate the source of contamination when a new source of contamination is detected.¹⁴

The monitoring details in Section 6.1 are based on Source Location monitoring performed in WY01.

6.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

Source Location monitoring may be implemented anywhere within a Site surface-water drainage area (including within the IA) where a new contaminant source is detected. The selection of monitoring points is determined by the details of the specific source evaluation to quickly determine source location and to efficiently utilize resources. For example, if monitoring (just outside the IA) through NSD monitoring suggests a new source within the IA, then portable-sampling equipment may be installed within the IA, to locate the source. Similarly, if monitoring for compliance in Segment 4 (POC) suggests a new source, then monitoring to identify the source may begin in Segment 5.

Source Location monitoring should begin as soon as practicable after initial source detection and continue until the source is identified and/or evaluated or is no longer detected. The number of samples will be based on the status of the source evaluation, taking into account, but not limited to, weather conditions, water availability, and process knowledge.

Analyte suites under this monitoring objective are determined based on the detected contaminant of current concern, or related indicators. The information types are entirely dependent on the results of other monitoring objectives under which the source was detected. The analyte suites are limited to parameters that will aid in the identification and evaluation of a contaminant source.

Flow data should be collected, where possible, to provide flow volumes required for contaminant loading analysis. Samples collected should be continuous flow-paced composites to facilitate comparison to POCs and POEs and allow for continuous contaminant loading analysis. Collection of real-time water-quality data may be initiated if such data would facilitate the specific source evaluation.

The specific scope for each source location investigation is detailed in either a sampling and analysis plan (SAP) or included as part of a Letter of Notification from the Site to the regulators.

6.2 WY01 MONITORING SCOPE

Table 6-1 lists the Source Location Monitoring locations that were operational during W2001. Figure 2-2 shows the location of these monitoring stations.

¹³ Note that the term "identify" is used here to mean "locate." Characterization is also implied.

¹⁴ The various monitoring objectives might "detect" a new source through an increase in baseline or exceedance of an action level, standard, permit limitation, etc., depending on the monitoring objective under which the potential new source was detected.

Table 6-1. Source Location Monitoring Locations

ID Code	Location	Flow Measurement Device	Telemetry	Notes
GS27	Small ditch NW of B884	2" Cutthroat Flume	Yes	Supports ongoing source evaluation for GS10 and 800 Area D&D
GS38	Central Ave. Ditch NW of Building 889	9.5" Parshall Flume	Yes	Supports ongoing source evaluation for GS10
GS39	Ditch NW of 904 Pad	1' H Flume	Yes	Supports ongoing source evaluation for GS10 and 903 Pad characterization
GS40	Drainage Ditch in PA E of Tenth St. (750 Pad) S of Building 997	1' Parshall Flume	Yes	Supports ongoing source evaluation for GS10 and 700 Area D&D
GS43	Drainage ditch NE of T886A	0.5' H-Flume	Yes	Supports ongoing source evaluation for GS10 and B886 D&D
GS50	Drainage ditch N of B990	6" Parshall flume	Yes	Supports ongoing source evaluation for GS10 and Solar Ponds activities
SW022	Central Avenue Ditch at inner east fence	9.5" Parshall flume	Yes	Supports ongoing source evaluation for GS10

Notes: All locations collect 5- and 15-minute flow data.

^a Due to the current configuration of in-place stormwater culverts, flow measurement at this location is not possible without significant construction modifications.

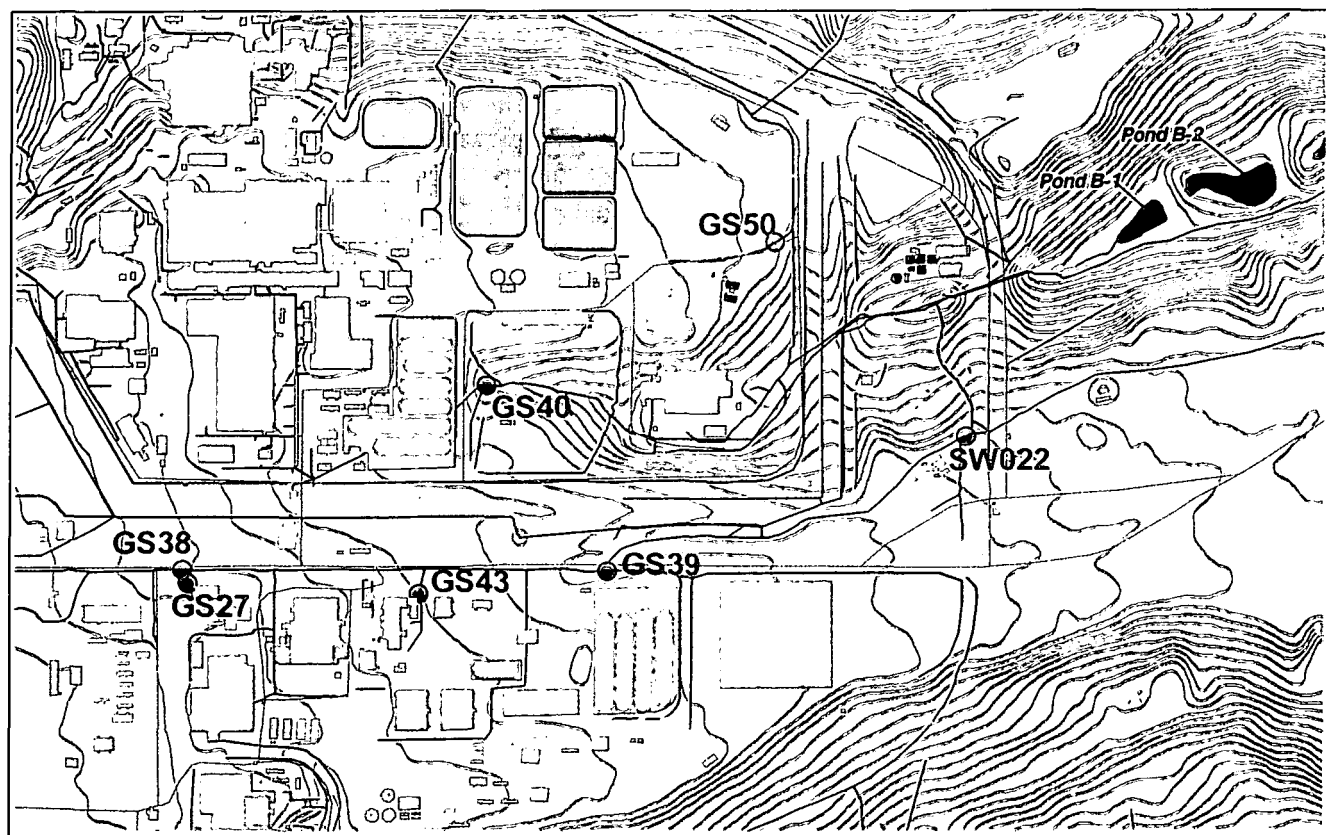


Figure 6-1. Water Year 2001 Source Location Monitoring Locations.

Table 6-2. Source Location Sample Collection Protocols.

ID Code	Frequency: WY01 Actual (Target)	Type ^b
GS27	8 (1 per month)	Storm-event rising-limb flow-paced composites ^c
GS38	12 (12 per year ^a)	Continuous flow-paced composites
GS39	12 (12 per year ^a)	Continuous flow-paced composites
GS40	14 (12 per year ^a)	Continuous flow-paced composites
GS43	6 (12 per year ^a)	Continuous flow-paced composites
GS50	4 (12 per year ^a)	Continuous flow-paced composites
SW022	12 (12 per year ^a)	Continuous flow-paced composites, storm-event rising-limb flow-paced composites ^d

Notes: ^a Annual total samples is 12 per year. Frequency of collection is based on expected flow volumes such that each sample collects water representing similar stream discharge volumes; for example, more samples are collected in wet spring months than dry winter months.

^b Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

^c Storm-event sampling at locations that are often dry and normally only receive stormwater runoff is opportunistic. Some locations may see flow only during wet months. Every attempt is made to achieve the target sample frequency; however, this is not always possible.

^d Prior to WY00, SW022 collected storm-event samples. In WY00 SW022 collected continuous flow-paced composites.

Table 6-3. Source Location Analytical Targets (Analyses per Year).

ID Code	TSS ^a : WY01 Actual (Target)	Pu, Am: WY01 Actual (Target)
GS27	8 (12)	8 (12)
GS38	3 (12)	12 (12)
GS39	4 (12)	12 (12)
GS40	1 (12)	14 (12)
GS43	1 (12)	6 (12)
GS50	0 (12)	4 (12)
SW022	5 (12)	12 (12)

Notes: ^a Ideally, TSS would be analyzed for all samples collected at the above locations. However, continuous flow-paced sampling protocols often result in composite samples which are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS can not be analyzed for all continuous flow-paced composite samples, but will be analyzed when possible.

6.3 DATA EVALUATION

Data collected at Source Location monitoring locations are analyzed based on their intent to aid in a specific source evaluation. These analyses include, but are not limited to, loading, fate and transport, correlations and trending, and other statistical evaluation. The WY01 source evaluation locations were operated in support of ongoing source evaluation for POE GS10. The recurring nature of reportable Pu and Am values at GS10 necessitated the continued operation of these locations. Although no GS10 source evaluation report is currently underway, the source location data continues to be evaluated in an attempt to understand the water-quality results from GS10. WY97 Walnut Creek Source Evaluation Reports (Reports #1, #2, #3, and Final; RMRS 1997a, 1997b, 1997c, and 1998a), the WY98-99 Source Evaluation Report for Point of Evaluation GS10 (RMRS 1999), and the WY00-01 Source Evaluation Report for Point of Evaluation GS10 (RMRS 2001b) contain more detailed analysis of the data collected at the above locations. The content of these reports is summarized below.

Summaries for Pu and Am at each location are given below. The following summaries include all results that were not rejected through the verification/validation process. When a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Other data are evaluated in the associated Source Evaluation Reports. All data are presented in Appendix B.2 Analytical Data.

Flow data are summarized in Section 3 Hydrologic Data; more detailed flow data are included in Appendix A.1 Discharge Data.

6.3.1 Location-Specific Summary Statistics

Table 6-4 shows both the volume-weighted average activity and the maximum sample activity for Pu and Am at the WY01 Source Location monitoring locations. The method for calculating the volume-weighted activities is given in Appendix B.1 Data Evaluation Methods.

Table 6-4. Selected Summary Statistics for Pu and Am at WY01 Source Location Monitoring Locations.

Location	Period of Data	Volume-Weighted Average Activity (pCi/L)		Maximum Sample Result (pCi/L)	
		Am-241	Pu-239,-240	Am-241	Pu-239,-240
GS27	10/1/00 – 9/30/01	NA	NA	0.401	1.790
GS38	10/1/00 – 9/30/01	0.020	0.096	0.042	0.219
GS39	10/1/00 – 9/30/01	0.028	0.117	0.083	0.640
GS40	10/1/00 – 9/30/01	0.039	0.027	0.085	0.085
GS43	10/1/00 – 9/30/01	0.004	0.012	0.018	0.075
GS50	3/28/01 – 9/30/01	0.234	0.137	0.442	0.225
SW022	10/1/00 – 9/30/01	0.025	0.093	0.043	0.150

Note: NA = Volume-weighted average activities are not calculated for storm-event sampling locations.

6.3.2 Loading Analysis

Table 6-5 shows the load summary for Pu and Am at the WY01 Source Location monitoring locations that exclusively collected continuous flow-paced composites. The method for calculating the loads is given in Appendix B.1 Data Evaluation Methods.

Table 6-5. Load Summary for Pu and Am at WY01 Source Location Monitoring Locations.

Location	Period of Data	Load in Micrograms (µg)	
		Am-241	Pu-239,-240
GS38	10/1/00 – 9/30/01	0.12	28.1
GS39	10/1/00 – 9/30/01	0.03	5.2
GS40	10/1/00 – 9/30/01	0.60	20.3
GS43	10/1/00 – 9/30/01	~0.0	~0.0
GS50	3/28/01 – 9/30/01	0.03	0.7
SW022	10/1/00 – 9/30/01	0.21	38.2

6.3.3 WY97 Source Evaluation for Walnut Creek

The WY97 Walnut Creek Source Evaluation Reports (Reports #1, #2, #3, and Final; RMRS 1997a, 1997b, 1997c, and 1998a) included source evaluations for POC GS03 and POEs GS10 and SW093. These reports were completed in response to reportable water-quality levels at these locations during Water Year 1997. The scope of the investigation for each report is summarized below.

The following text is taken directly from Progress Report #1 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997a) describing the contents of that report related to GS10:

- An evaluation of sampling and analysis QA/QC protocol to verify elevated water-quality results;
- Results and analysis of ongoing RFCA monitoring;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations;

- Details on the new monitoring locations upgradient of GS10;
- An initial qualitative evaluation for GS10;
- A discussion of the recent change from rising-limb to continuous flow-paced sampling at RFCA POE and POC locations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from Progress Report #2 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997b) describing the contents of that report:

- Hypotheses for source location(s) with supporting and non-supporting information, including preliminary results on source location;
- Results and analysis of ongoing RFCA monitoring;
- A summary of walk-down activities and observations for GS10;
- An assessment of existing monitoring data for GS10;
- A detailed description of new sediment/soil sampling locations for GS10;
- A detailed description of proposed new Source Location monitoring stations for GS10;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from Progress Report #3 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997c) describing the contents of that report:

- Results and analysis of ongoing RFCA monitoring;
- Updates to the ongoing GS10 evaluation;
- Updates for the new Source Location monitoring stations for GS10;
- An evaluation of the effects that watershed improvements may have had on Site water quality;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from the Final Report to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1998a) describing the contents of that report:

- Updates to the ongoing GS10 evaluation;
- Results and analysis of ongoing RFCA monitoring;
- An assessment and incorporation of available new data for GS10;
- Updates for the new Source Location monitoring stations for GS10;
- Hypotheses for source location(s) with supporting and non-supporting information;
- An identification of data gaps and uncertainties in the source evaluation process with suggested modifications (if any) to the AMS Workslope and the IMP;
- A summary of current AMS findings with cross-links to source evaluations;

- A summary of the status for sampling and operational modifications;
- Results of the source location evaluation;
- A detailed description of identified source areas; and
- A general description of mitigating actions applicable to sources which may be identified in the future.

In the Final Report, the following findings regarding the possible source(s) of the reportable values at GS10 were noted:

To date, a singular source for GS10 can not be identified. Information collected to date does not point to any singular conclusion. In fact, it is likely that multiple sources and transport mechanisms are responsible for the elevated activities at GS10. *To date, no localized areas of radiological contamination have been identified — either historical or resulting from current operations. The Site concludes that the likely source of the exceedance of the 30-day average for Pu and Am at POE GS10, resulted from diffuse radionuclide contamination from past Site operations released to the environment through events and conditions over past years.*

The Final Report further lists the possible GS10 source(s):

- Diffuse soil and sediment contamination in the GS10 drainage
- Localized contamination near the GS10 sampling location
- Tributary surface-water source transporting contamination

6.3.4 WY98–99 Source Evaluation for POE GS10

The WY98–99 Source Evaluation Report for Point of Evaluation GS10 (RMRS 1999) was completed in response to reportable water-quality levels at GS10 during Water Years 1998 and 1999. The following text is taken directly from that report describing the contents:

- Results and analysis of ongoing automated surface-water monitoring;
- A brief review of existing soil/sediment data;
- An assessment of Decontamination and Decommissioning (D&D), Environmental Restoration, and Site Closure projects; and
- A summary of current Actinide Migration Evaluation findings.

This following text summarizes the findings, and presents preliminary conclusions based on information presented and analyzed in this report:

- Surface-water and soil/sediment sampling results suggest that one or more low-level distributed actinide source areas exist within the GS10 drainage. Further, surface-water activities have been of similar magnitudes for the last decade, suggesting source areas that originated as legacy contamination.
- Surface-water sampling results from GS10 show Pu/Am activity ratios that are distinguishable from Pu/Am ratios at other surface-water monitoring location at the Site. This suggests a source relatively 'enriched' in americium may exist in the GS10 drainage.
- Recent surface-water sampling results from Source Location monitoring stations has further refined the estimation of relative plutonium load contributions to GS10 from upstream

subdrainage areas. These load estimations suggest that plutonium source terms may exist in the following subdrainage areas:

1. The Central Avenue Ditch reach between surface-water monitoring locations GS38 and SW022;
 2. Portions of the 800 Area;
 3. A portion of the 500 Area outside the PA; and
 4. The South Walnut Creek reach between surface-water monitoring locations GS40 and GS10.
- Recent surface-water sampling results from Source Location monitoring stations have further refined the estimation of relative americium load contributions to GS10 from upstream subdrainage areas. These load estimations suggest that americium source terms may exist in the following subdrainage areas:
 1. A portion of the 500 Area outside the PA; and
 2. The South Walnut Creek reach between surface-water monitoring locations GS40 and GS10.
 - Evaluation of readings from *insitu* water-quality monitoring probes indicates no unusual or unexpected conditions for WY99 to date. WY99 trends for all parameters are similar to those observed in WY98 and WY97.
 - A review of current Site activities indicate that no D&D, ER Projects, excavation, nor routine Site operations caused a release of plutonium or americium that resulted in the elevated activities measured at GS10.
 - The elevated values observed at GS10 and other monitoring locations in the GS10 drainage are not being observed at the Ponds or downstream POCs.

6.3.5 WY00-01 Source Evaluation for POE GS10

The WY00-01 Source Evaluation Report for Point of Evaluation GS10 (RMRS 2001b) was completed in response to reportable water-quality levels at GS10 during Water Years 2000 and 2001. The following text is taken directly from that report describing the contents:

- Summary of current applicable Actinide Migration Evaluation findings;
- Evaluation of ongoing automated surface-water monitoring including automated synoptic sampling within the GS10 drainage;
- Estimated actinide loads within the GS10 drainage area;
- Evaluation of Pu/Am ratios within the GS10 drainage area;
- Evaluation of water-quality correlations;
- Evaluation of existing soil/sediment data as well as recent sediment sampling within the GS10 drainage; and,
- Assessment of Decontamination and Decommissioning (D&D), Environmental Restoration, and Site Closure projects.

This following text summarizes the findings, and presents preliminary conclusions based on information presented and analyzed in this report:

The Site concludes that the likely sources of the reportable 30-day moving average values at GS10 are:

1. Diffuse actinide contamination associated with soils and sediments from past Site operations released to the environment through events and conditions over past years. This actinide contamination is transported with suspended solids in surface-water runoff during precipitation events.
2. Actinide contamination 'enriched' in Am that has been incorporated into the stream sediments in South Walnut Creek from past Site operations through events and conditions over past years. This actinide contamination is transported through sediment resuspension by surface-water runoff during precipitation events.

Based on this evaluation, Site personnel conclude that no specific remedial action(s) is indicated at this time, other than scheduled remedial actions and closure activities for the Site. This source investigation has identified no highly localized source(s) of contamination that warrant targeted remediation based on the available information. The conclusions detailed in this report are summarized below:

- Based on the details regarding recent Site activities outlined in Section 5, it is concluded that neither D&D, construction, environmental remediation, excavation, nor routine operations caused a release that resulted in the reportable Pu and Am values measured at GS10.
- Historical GS10 data suggest that actinides have been available for transport to GS10 for some time and that the recent measurements at GS10 are likely the result of legacy contamination (Section 4.2.1).
- The loading analysis in Section 4.2.2 indicates that the South Walnut Creek reach between GS40 and GS10 is the likely origin of the majority of the Pu and Am load measured at GS10.
- Results in Section 4.2.3 also indicate that the average Pu/Am activity ratio for surface-water samples from GS10 is lower than that generally observed in other drainages and subdrainages across the Site. Results also indicated that the Pu/Am ratios observed at GS10 are significantly lower than those observed at monitoring locations GS27, GS28, GS 38, GS39, and SW022. Although monitoring locations GS40 and GS50 show low Pu/Am ratios, these locations do not contribute significant loads to GS10. These results indicate that a source 'enriched' in Am exists within the GS10 drainage, specifically in the main S. Walnut Cr. reach between GS40 and GS10.
- Extensive evaluation of water-quality correlations indicate that a source term 'enriched' in Am is associated with the sediments in the main S. Walnut Cr. stream reach (Section 4.2.4). This source term appears to affect GS10 water-quality to varying degrees based on streambed erosion/resuspension rates, relative load contributions from distributed sources, and hydrologic conditions. The HRR and soil/sediment data provide information supporting this hypothesis. However, sufficient data do not exist to establish the extent and exact location of this source term.
- Surface-soil and sediment data (Section 4.4) clearly show the existence of distributed Pu and Am source terms throughout the GS10 drainage. The areas near the Solar Ponds and within the S. Walnut Cr. stream reach show lower Pu/Am ratios. However, sufficient data do not exist to establish the extent and exact location of the Am 'enriched' source term in the main S. Walnut Cr. stream reach.

7. AD HOC MONITORING

The Site often monitors surface waters on an *ad hoc* basis for a variety of reasons. This monitoring may be requested by DOE, RFFO, cities, agencies, building managers, and Site facility managers (e.g. the WWTP). It is anticipated that various parties will continue to request such *ad hoc* monitoring in the future, regardless of whether funding is allocated for that purpose. This monitoring will not always require sample analyses. In some cases, only flow or continuously recording water-quality monitoring will be needed. Examples of situations that may warrant *ad hoc* monitoring include:

- Major precipitation events that disrupt routine pond predischarge monitoring and discharge schedules,
- Community assurance monitoring at the request of downstream cities and the DOE RFFO,
- Unanticipated changes in regulatory permits, agreements, or funding,
- Special projects such as Actinide Migration Evaluation and Site-Wide Water Balance,
- Anticipated but unfunded changes in permits or agreements,
- Construction projects,
- Spill events, and
- Operational monitoring (i.e. footing drains, septic lift stations).

The Ad Hoc monitoring details in Section 7.1 are based on the automated Ad Hoc monitoring performed in WY01. Additionally, results from the (LANL) study using ICP-MS analysis for uranium isotopes U-234, U-235, U-236, and U-238 is given in Section 7.3.4. This study used manually collected samples from selected surface-water monitoring locations. As such, Section 7.2 WY01 Monitoring Scope does not include these non-automated locations.

7.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The type of data collected depends exclusively on the predetermined intent of the specific Ad Hoc monitoring location. The collected data can then be processed to provide decision support or input to a technical analysis. In most cases, flow is the primary data collected.

7.2 WY01 MONITORING SCOPE

Table 7-1 lists the Source Location Monitoring locations that were operational during WY01. Figure 2-2 shows the location of these monitoring stations.

Table 7-1. Ad Hoc Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry	Notes
B371BAS	Building 371 basement footing drain	11.4° V-Notch Weir	Yes	Data collection to confirm proper operation of footing drain systems; funded by Safe Sites
B371SUBBAS	Building 371 sub-basement footing drain	11.4° V-Notch Weir	Yes	Data collection to confirm proper operation of footing drain systems; funded by Safe Sites
GS22	Outfall from 400 Area at SID	1.5' H Flume	Yes	Data collection for Site Water Balance

ID Code	Location	Primary Flow Measurement Device	Telemetry	Notes
GS33	No Name Gulch at confluence with Walnut Creek	9.5" Parshall Flume	Yes	Data collection for Site Water Balance
GS34	Walnut Creek above confluence with McKay Ditch	1.5' Parshall Flume	Yes	Data collection for Site Water Balance
GS35	McKay Ditch at confluence with Walnut Creek	36" Sharp-Crested Rectangular Weir with End Contractions	Yes	Data collection for Site Water Balance
GS41	Subdrainage SW of GS03; drains to Walnut Creek	0.5' H Flume	Yes	Data collection for Actinide Migration Studies
GS42	Subdrainage N of SW027; drains to SID	3" Parshall Flume	Yes	Data collection for Actinide Migration Studies
GS45	Upper Church Ditch east of Site fenceline	9.5" Parshall Flume	No	Data collection for Site Water Balance
GS46	McKay Ditch east of Site fenceline	9.5" Parshall Flume	No	Data collection for Site Water Balance
SW009	McKay Bypass Canal upstream of confluence with West Diversion Ditch	1' Parshall Flume	No	Data collection for Site Water Balance

Note: Only locations specifically installed in support of an Ad Hoc project are shown. All locations providing information (flow and precipitation to Site Water Balance) are shown in Figure 7-1.

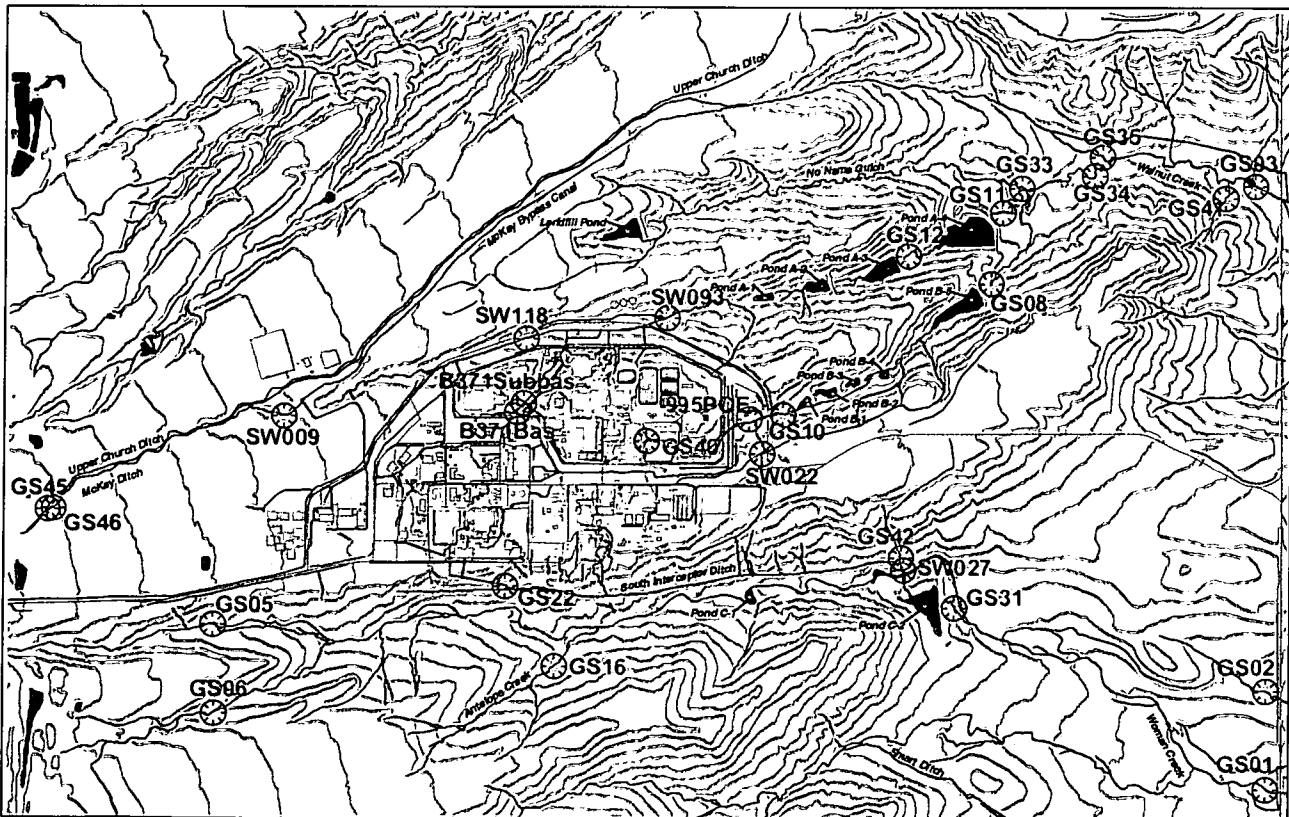


Figure 7-1. Water Year 2001 AdHoc Monitoring Locations.

Table 7-2. Ad Hoc Field Data Collection: Parameters and Frequency.

ID Code	Parameter
	Discharge
B371BAS	hourly averages of 1-min. measurements
B371SUBBAS	hourly averages of 1-min. measurements
B779RD-01	NA
B886RD-01	NA
GS22	15-min continuous
GS33	15-min continuous
GS34	15-min continuous
GS35	15-min continuous
GS41	15-min continuous
GS42	15-min continuous
GS45	15-min continuous
GS46	15-min continuous
SW009	15-min continuous

Note: Only locations specifically installed in support of an Ad Hoc project are shown. All locations providing information (flow and precipitation) are shown in Figure 7-1.

Table 7-3. Ad Hoc Sample Collection Protocols.

ID Code	Frequency: WY01 Actual (Target)	Type ^b
GS41	2 (10-12 as available ^a)	Storm-event flow-paced composites
GS42	0 (10-12 as available ^a)	Storm-event flow-paced composites

Notes: ^a Target for the project is 10-12. Frequency of collection is based on opportunistic availability of precipitation runoff; these locations are dry much of the time.

^b Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.
Only locations where sampling occurs in support of an Ad Hoc project are shown.

Table 7-4. Ad Hoc Analytical Targets (Analyses per Year).

ID Code	TSS	Pu, Am
GS41	2 (10-12)	2 (10-12)
GS42	0 (10-12)	0 (10-12)

7.3 DATA EVALUATION

7.3.1 Building 371 Footing Drain Monitoring Locations

Operation of B371BAS and B371SUBBAS provides real-time data confirming the proper operation of the B371 footing drain systems. B371 personnel are notified of a no-flow or high-flow condition, which would initiate investigation of those systems. Telemetry has been made available to B371 personnel to allow for direct tracking of footing drain operation and for the monthly building surveillance activity. Flow data are not given in this report. Data can be found in Appendix 1 of the *Building 371 Subsurface Drain System* procedure (4-K14-SDS-371). No sample collection is performed at these locations.

7.3.2 Sitewide Water Balance Flow Measurement Locations

Monitoring locations GS22, GS33, GS34, GS35, GS45, GS46, and SW009 were operated to specifically collect flow data in support of collected the Site-Wide Water Balance Modeling Project. Flow data from these locations will be applied to configuration and calibration of the model. Flow and precipitation data from existing monitoring locations at the Site are also used by this project (see Section 7.2). These locations are described

under the other decision rules included in this report. Flow data are summarized in Section 3 Hydrologic Data; more detailed flow data are included in Appendix A.1 Discharge Data.

7.3.3 Erosion and Actinide Transport Monitoring Locations

Data collected at GS41 and GS42 will be used for Actinide Migration Evaluation (AME) projects. Specifically, evaluation will include determination of sediment yield and associated actinide content on the suspended solids. These estimates will be calculated based on the analytical results obtained from TSS, Pu, Am, and U analyses at these locations. Two AME reports, the *Actinide Migration Evaluation Pathway Analysis Report* and the *Soil Erosion and Sediment Transport Modeling of Hydrologic Scenarios for the Actinide Migration Evaluations at the Rocky Flats Environmental Technology Site* report will include data from these locations. Data analysis is not included in this report.

Flow data are summarized in Section 3 Hydrologic Data; more detailed flow data are included in Appendix A.1 Discharge Data.

7.3.4 LANL ICPMS Uranium Study

On 1/28/02, 10 surface-water samples collected at RFETS by the Site were received at LANL. The 10 500ml bottles were consecutively labeled 514-001 through 514-010. The sample locations as recorded on chain of custody/sample analysis request CAS012402 are listed with the bottle numbers in Table 7-5. Sample locations were not provided for samples 514-009 and 514-010. The samples were undamaged in shipping and were analyzed as received for uranium isotopes U-234, U-235, U-236, and U-238 by high resolution ICP-MS on 3/15/02 and 4/02/02. The samples were additionally analyzed for Pu-204 on 3/14/02 to determine the contribution of P204O2 to signal at m/z 236. None was observed.

Data Collection/Methodology

Analyses were conducted in conformance with EPA SW-846 Method 6020A (revision 1, January 1998) with the following exceptions:

- Concentration was calculated from corrected intensity data by applying a response factor for each isotope rather than applying a linear regression calibration curve derived from a range of calibration standards.
- Quality Control (QC) acceptance criteria as delineated in Method 6020A were not strictly adhered to in data evaluation since uranium is not a listed analyte in the method and obtaining method conformance for isotopes U-234 and U-236 was not readily achievable.

Quality Control

All QC samples and standards required by Method 6020A were analyzed including calibration verification standards and blanks, a sample duplicate, a serial dilution sample, a post digestion spike and a laboratory control standard. NBS U960 was used as the calibration standard. NBS U005 and U010 were used as check standards. A commercially prepared uranium standard from High Purity standards was used as the laboratory control standard.

Results

The results for the 10 samples are summarized in Table 7-5. The 236/238 ratios have been corrected for the presence of U-235 hydride at mass 236. In some cases, this run average correction is too large and results in negative values in the table.

Based on the observations of statistically significant deviations from the natural U-238/-235 atom ratio of 139 and the presence of U-236 which does not occur naturally, samples 2, 5, 6, and 9 appear to contain depleted uranium from Rocky Flats operations. These samples are seen in Figure 7-2 to lie in the right half of the plot. Figure 7-2 is a plot of 235/238 vs. 236/238 for surface-water for samples 1-9. Samples that appear natural plot at the intersection of the zero U-236 vertical line and the natural U-235/-238 horizontal line. Samples that fall on

the right half of the plot are not natural and indicate uranium derived from Rocky Flats operations (samples 2,5,6, and 9). These plot along the mixing line shown in red between natural and depleted uranium.

Table 7-5. ICP-MS Data from the LANL Uranium Study.

Sample	Location	U-236/-238	+/-	U-235/-238	+/-	U µg/L	+/-
514-001	GS01	1.922E-06	2.000E-06	0.007074	0.000354	10.136891	0.21187
514-002	GS03	8.813E-06	2.000E-06	0.006451	0.000323	2.197284	0.11198
514-003	GS04	1.376E-07	2.000E-06	0.007172	0.000359	1.785421	0.07167
514-004	GS05	-1.888E-06	2.000E-06	0.006608	0.000330	0.164187	0.00439
514-005	GS10	1.050E-05	2.000E-06	0.006417	0.000321	9.386207	0.36124
514-006	GS13	1.245E-05	2.000E-06	0.006272	0.000314	15.415099	0.77196
514-007	GS17	1.727E-06	2.000E-06	0.007106	0.000355	2.613553	0.07941
514-008	SW118	2.690E-07	2.000E-06	0.007336	0.000367	4.864854	0.40349
514-009	GS10 (DUP)	9.953E-06	2.000E-06	0.006333	0.000317	9.431062	0.61982
514-010	blank	-8.468E-05	2.000E-06	-0.026534	-0.001327	0.002244	0.00116

Notes: Results are averages of two runs.

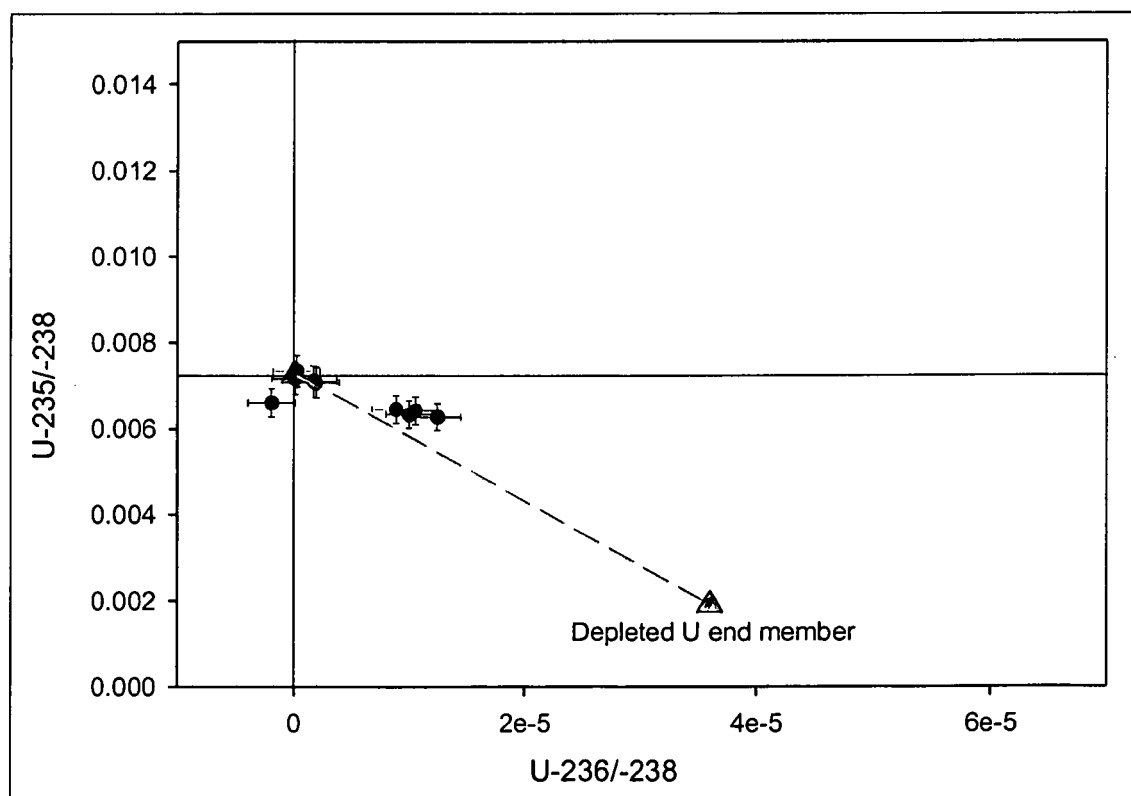


Figure 7-2. Uranium Ratios U-235/-238 vs. U-236/-238 for LANL ICP-MS Samples.

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8. INDICATOR PARAMETER MONITORING FOR ASSESSMENT OF ANALYTICAL WATER-QUALITY DATA

This objective provides the justification for the collection of general water-quality and quantity information to be used for various data assessments. Specifically, this objective outlines the current and expected uses of parameters such as TSS, turbidity, and flow rate.

This monitoring objective is intended to establish relationships between analytical measurements of constituents such as actinides and metals with selected indicator parameters, such as TSS, turbidity, precipitation, and flow rate. The determination of these relationships will support evaluation of erosion control measures, design of final Site land configuration options, future pond operations, investigations into actinide transport, assessment of statistically significant changes in water quality, and management decision making. Table 8-3 provides a listing of data uses for this monitoring objective.

8.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

To evaluate the relationship between TSS and analytical constituents¹⁵, TSS would ideally be analyzed for all samples collected at the locations covered by the other decision rules in this report. However, sampling protocols (continuous flow paced) often result in composite samples that are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS cannot be analyzed for all composite samples but will be analyzed whenever hold time requirements are met.

To evaluate the relationship between turbidity and analytical constituents, turbidity will be monitored at the locations where required by the other applicable decision rules. These locations include POEs [GS10, SW093, and SW027] and terminal pond POCs [GS08, GS11, and GS31]. Each of these stations is equipped with a real-time, water-quality probe to continuously monitor turbidity.

To evaluate the relationship between precipitation and analytical constituents, precipitation is currently monitored at 10 locations across the Site.¹⁶ The location of precipitation gages allows for the calculation of areal precipitation for any drainage area tributary to each monitoring location. Each of these locations is equipped with a continuously recording precipitation gage.

To evaluate the relationship between flow rate and analytical constituents, flow is currently monitored at almost all monitoring locations across the Site. Each of these locations is equipped with continuously-recording flow-measurement instrumentation. Some locations do not collect flow data due to specific water routing configuration limitations. However, flow can be estimated for these locations using flow from comparable locations, runoff coefficients, and subdrainage area.

This decision rule does not limit the data uses to those given in Table 8-3. Relationships can be determined for any data combinations as required. For example, relationships between flow and precipitation, turbidity and TSS, precipitation and TSS, etc. may be useful depending on the specific data evaluation.

8.2 WY01 MONITORING SCOPE

The following tables detail the Indicator Parameter monitoring scope for WY01. Figure 8-1 shown the locations evaluated in this section.

¹⁵ The term 'analytical constituents' is used here to refer to constituents measured for samples collected as defined by the other decision rules in this report.

¹⁶ New precipitation gages have been installed during FY2002 at locations GS16 and SW091 to provide additional data resolution.

Table 8-1. Indicator Parameter Data Collection: Parameters and Frequency.

Parameter	Frequency	Monitoring Location(s)
Turbidity ^a	15-min continuous	GS08, GS10, GS11, GS31, SW027, and SW093
Flow rate	5-min continuous	All locations where feasible
Precipitation	5-min continuous	10 locations statewide
Flow volume	Derived from flow rate for any selected time period	All locations where feasible

Notes: ^a Turbidity is collected using real-time water-quality probes. These probes can not handle winter icing conditions without being damaged. Therefore, these probes collect data whenever possible, and data collection may not be possible for significant periods during the winter.

Table 8-2. Analytical Data Collection: Analytes and Frequency.

Analyte	Frequency	Monitoring Location(s)
Radionuclides	Determined by applicable monitoring objective	All locations as applicable
Total Suspended Solids (TSS)	Determined by applicable monitoring objective; all samples that meet TSS hold time limits	All locations as applicable

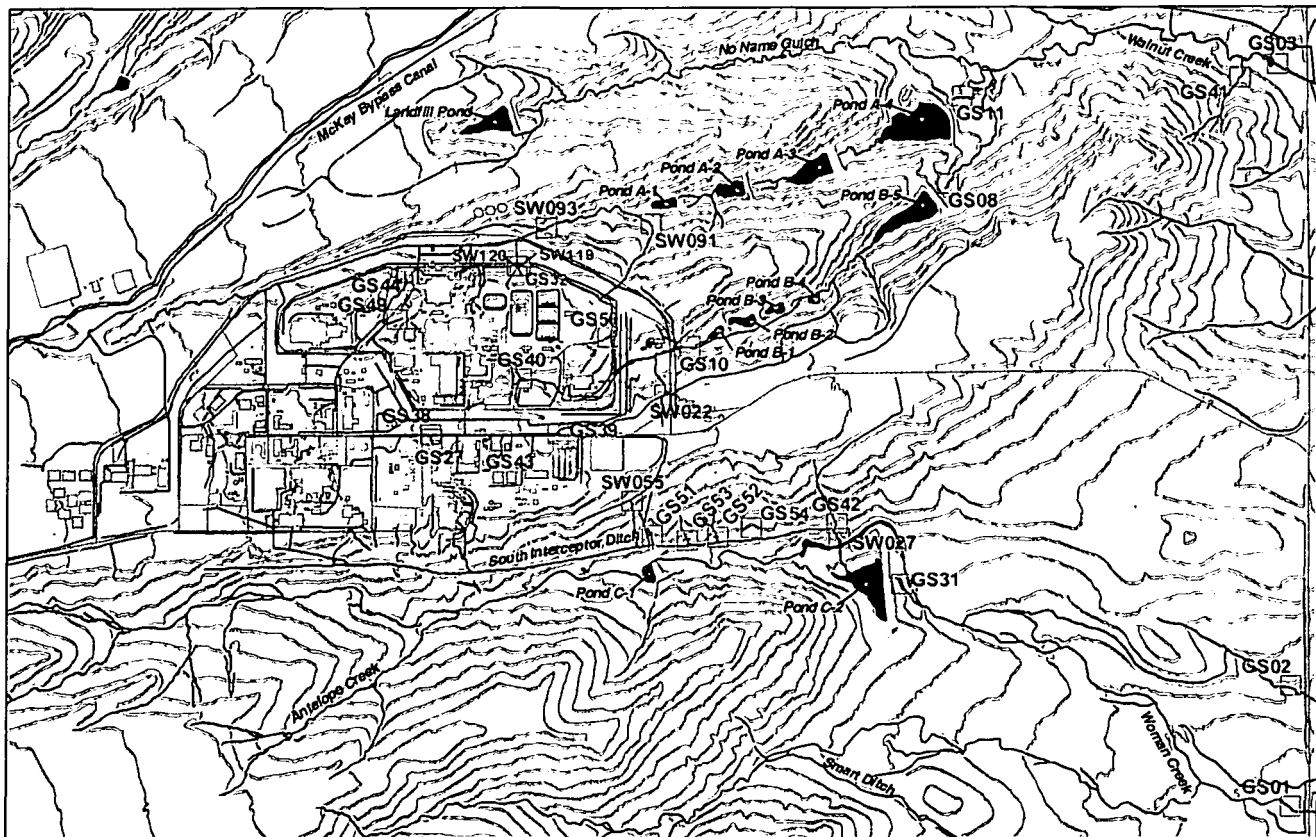


Figure 8-1. Water Year 2001 Indicator Parameter Monitoring Locations.

8.3 DATA EVALUATION

Table 8-3 outlines the anticipated or past data uses associated with this decision rule. This list provides examples of data uses; future data uses are expected to be developed as needs arise. The data uses listed in **bold** are

included in this section. Other data uses are included in Source Evaluation reports (see Section 6) or in reports from other Site projects.

The following evaluations include all results from Water Years 1997 through 2001¹⁷ that were not rejected through the verification/validation process. When a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

Linear, logarithmic, 2nd-order polynomial, power, and exponential curve fits were tested for each of the data sets. The curve fit with the highest R² value was then selected for plotting. In general, but not exclusively, data sets with R² values of less than 0.4 were plotted without a trendline. The R² values were then used to qualitatively assess the plotted fits. Generally, 0.4 < R² < 0.5 is considered weak, 0.5 < R² < 0.7 is considered fair, 0.7 < R² < 0.9 is considered good, and R² > 0.9 is considered strong.

Table 8-3. Selected Data Uses of Indicator Parameter Monitoring for Analytical Water-Quality Assessment.

Data Use	Required Parameters	Description
Correlation of Actinides with TSS	Actinides, TSS	Use of TSS measurements to predict actinide concentrations
Correlation of Actinides with Turbidity	Actinides, turbidity	Use of turbidity measurements to predict actinide concentrations
Correlation of Radionuclides with Flow Rate	Radionuclides, flow rate	Use of flow rate measurements to predict radionuclides concentrations
Rainfall-Runoff Relationships	Precipitation, flow rate, flow volume	Determination of hydrologic characteristics for specific drainage areas
Correlation of TSS with Turbidity	TSS, turbidity	Use of turbidity measurements to predict TSS concentrations
Correlation of TSS and Turbidity with Flow Rate	TSS, turbidity, flow rate	Use of flow rate measurements to predict TSS concentrations and turbidity
Assessment of Actinide Measurements	Actinides, TSS, turbidity, flow rate	Determine if cause of elevated actinide measurement is likely due to Site activity (i.e. D&D work) or unusual hydrologic conditions
Assessment of Closure Activities	Actinides, TSS, turbidity, flow rate	Determine effects of closure activities on water quality and drainage characteristics
Erosion Modeling	TSS, flow rate, actinides	Model design, calibration, and verification
Water Balance Modeling	Flow rate, flow volume	Model design, calibration, and verification
BMP Assessment	TSS, turbidity, flow rate	Determine effectiveness of various erosion control measures
Land Configuration Design	Flow rate, flow volume, TSS	Design land configuration options: determine flow routing, size hydraulic components, assess sedimentation rates, design maintenance and operation protocols
Long-Term Stewardship	Flow rate, flow volume, TSS, turbidity	Assess post-closure conditions

¹⁷ All water years with current IMP sample collection protocols are used in this section. The data is not limited to WY2001 in order to have a larger data set for evaluation.

8.3.1 Correlation of Actinides with TSS

Since Pu and Am tend to be transported in surface water in association with particulate matter (measured as TSS), a relationship between activity and TSS could be used as an indicator of Pu and Am transport. This section evaluates the variation of composite sample Pu and Am activity with the corresponding TSS concentration. Plots are presented for all locations where both Pu and Am data are collected with TSS.

The sample Pu and Am activities are the values obtained through laboratory analysis given in pCi/L. Only Pu and Am values greater than the MDA (generally 0.015 pCi/L) are included.

The sample TSS is the value obtained through laboratory analysis given in mg/L. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations below were analyzed for TSS. Only TSS values greater than the detection limit (generally 5 mg/L) are included.

Plots are also included to assess the variability of composite-sample suspended solids activity (as pCi/g Pu or Am) with the corresponding TSS. The suspended solids activity is calculated by dividing the activity by the TSS concentration and converting for units.

Only locations that had greater than two data pairs are plotted. As such, locations GS01, GS40, GS42, GS43, GS44, GS49, GS50, GS51, GS52, GS53, GS54, SW055, SW119, and SW120 are not presented.

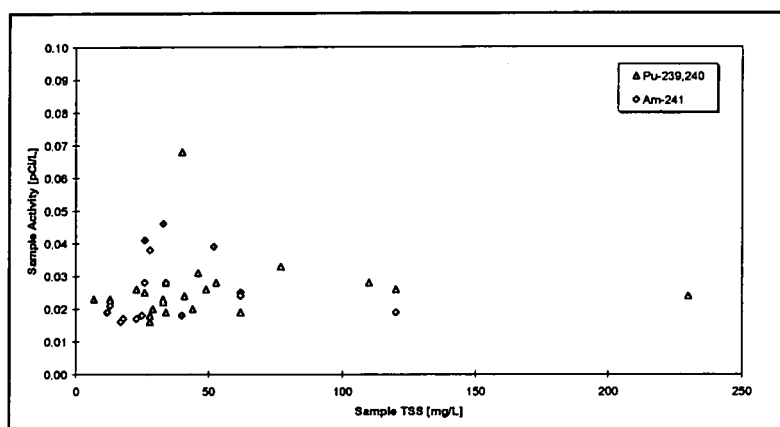


Figure 8-2. Variation of Pu and Am with TSS at GS03.

Location GS03

GS03 shows no statistically significant correlation between activity and TSS.

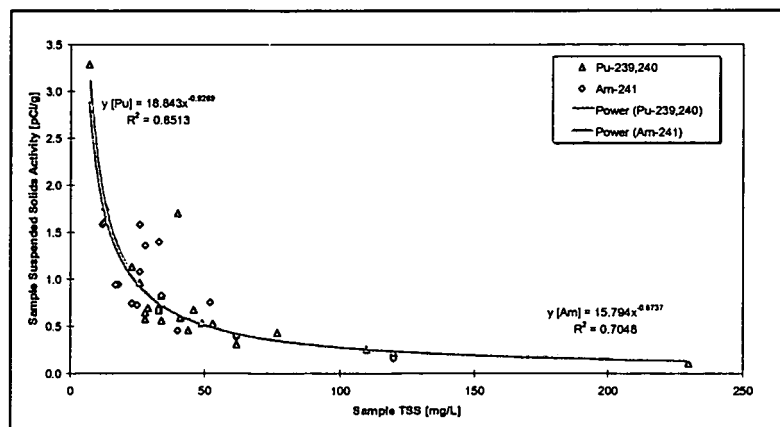
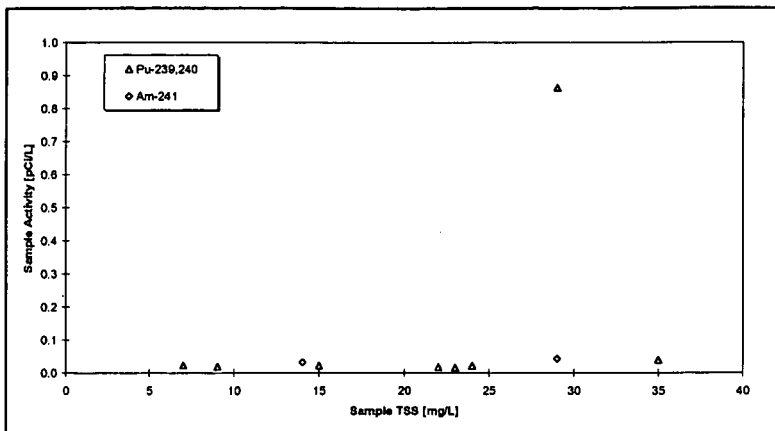


Figure 8-3. Variation of Suspended Solids Activity with TSS at GS03.

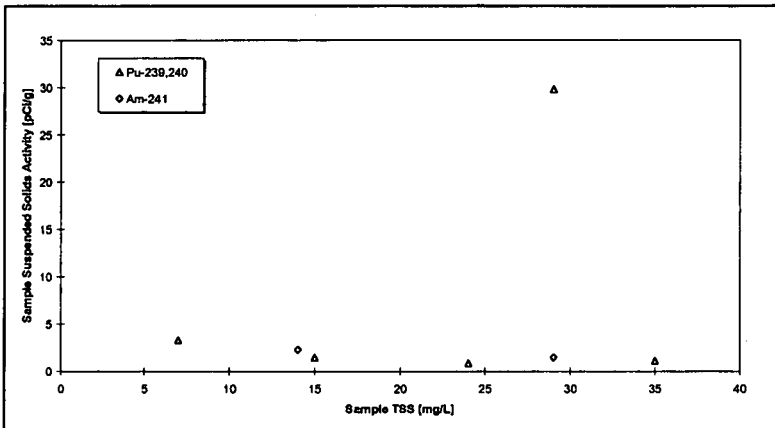
Good correlations exist at GS03 for decreasing solids activity with increasing TSS. If all TSS particles were of similar activity, then suspended solids activity would not vary with TSS concentration. Since TSS generally increases with increasing flow rate at GS03 (Figure 8-82), the data suggest that the more easily mobilized particles (possibly based on density) are of a higher activity per unit mass than the heavier particles that are more likely to move at higher flow rates.



Location GS08

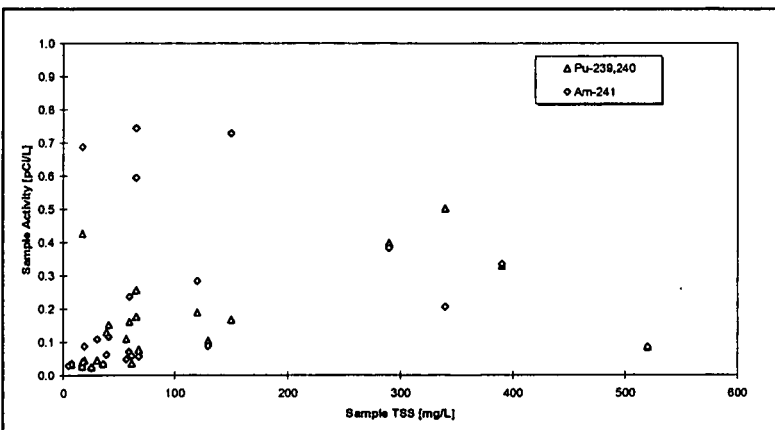
GS08 shows no statistically significant correlation between activity and TSS.

Figure 8-4. Variation of Pu and Am with TSS at GS08.



GS08 also shows no statistically significant correlation between suspended solids activity and TSS.

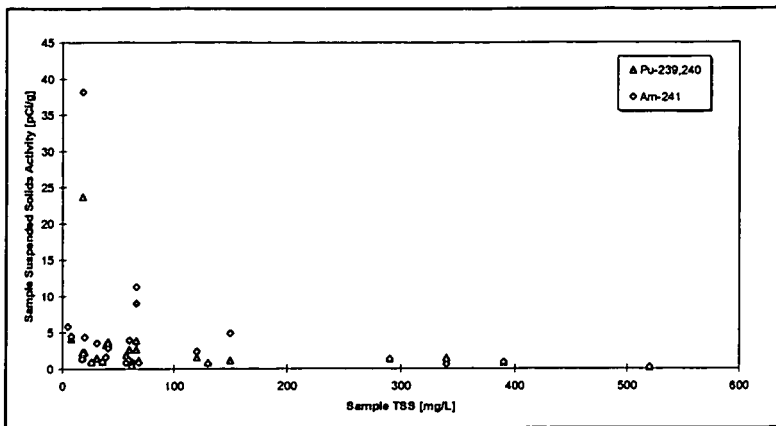
Figure 8-5. Variation of Suspended Solids Activity with TSS at GS08.



Location GS10

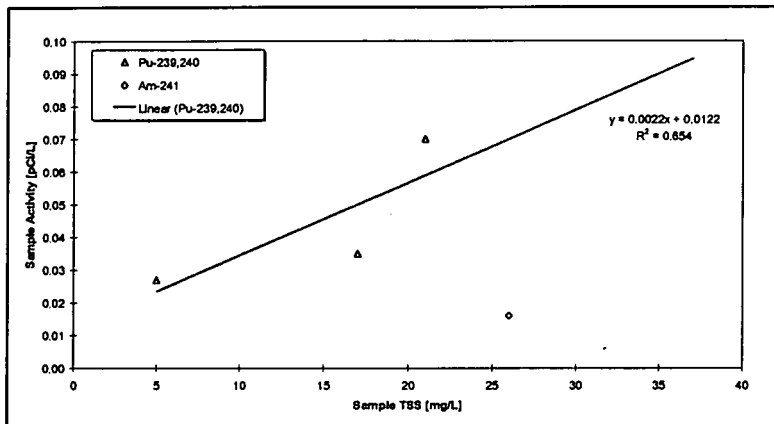
GS10 shows a weak correlation between increasing Pu and increasing TSS. However, no correlation is evident between Am and TSS. This lack of correlation may be caused by the variability of contamination levels throughout the drainage and the possible existence of localized Am source areas (see Section 6.3.5).

Figure 8-6. Variation of Pu and Am with TSS at GS10.



GS10 shows no statistically significant correlation between suspended solids activity and TSS. This lack of correlation may also be caused by the variability of contamination levels throughout the drainage and the possible existence of localized Am source areas (see Section 6.3.5).

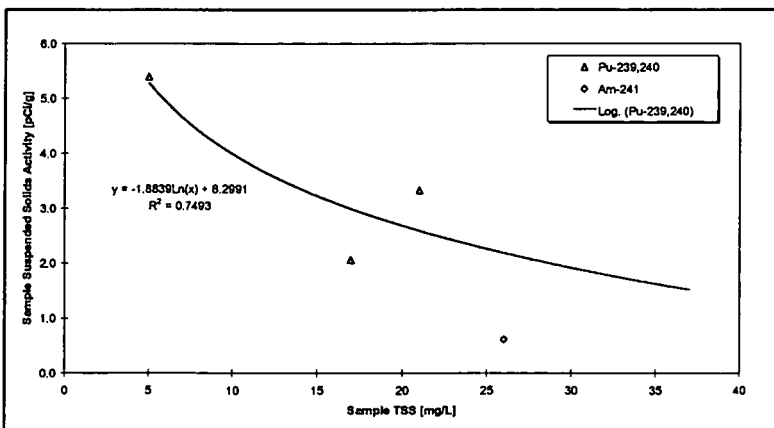
Figure 8-7. Variation of Suspended Solids Activity with TSS at GS10.



Location GS11

GS11 shows a fair correlation between increasing Pu and increasing TSS for the few data points available. Only one Am-TSS point was available.

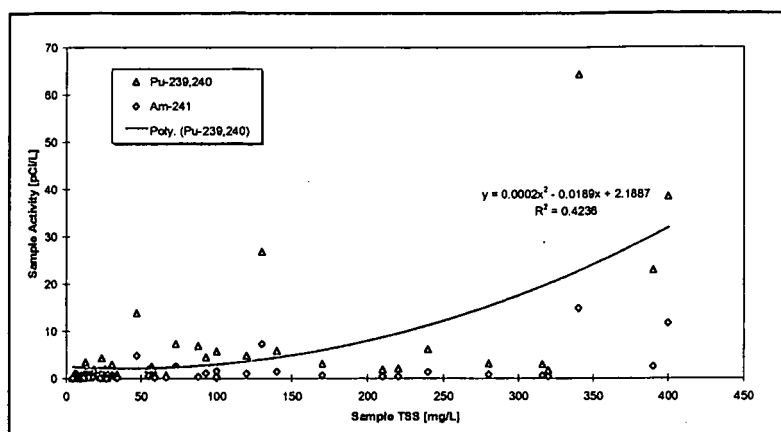
Figure 8-8. Variation of Pu and Am with TSS at GS11.



GS11 shows a good correlation between *decreasing* Pu and increasing TSS for the few data points available. This may be caused by the preferential association of Pu with smaller/lighter particles.

Only one Am-TSS point was available.

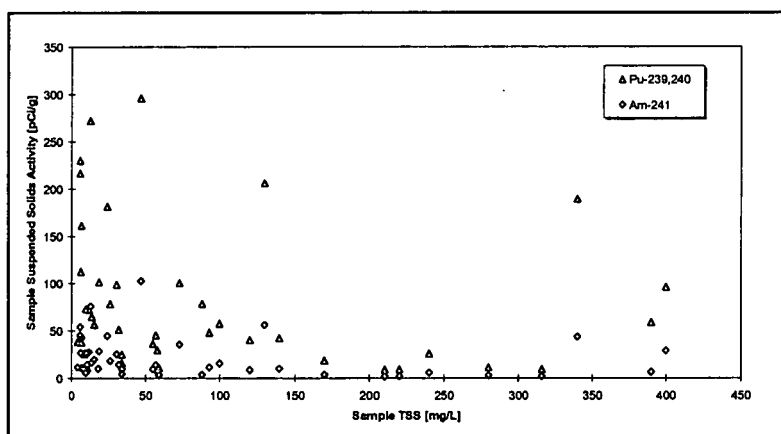
Figure 8-9. Variation of Suspended Solids Activity with TSS at GS11.



Location GS27

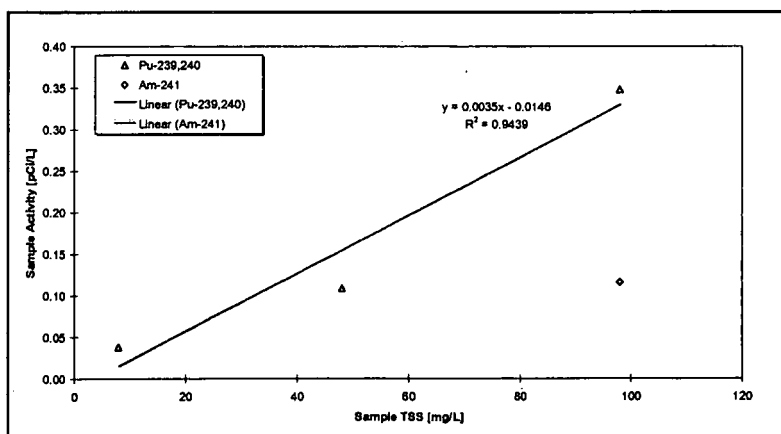
GS27 shows that the highest Pu and Am activities are associated with higher TSS, although the correlation is poor.

Figure 8-10. Variation of Pu and Am with TSS at GS27.



GS27 shows no statistically significant correlation between suspended solids activity and TSS.

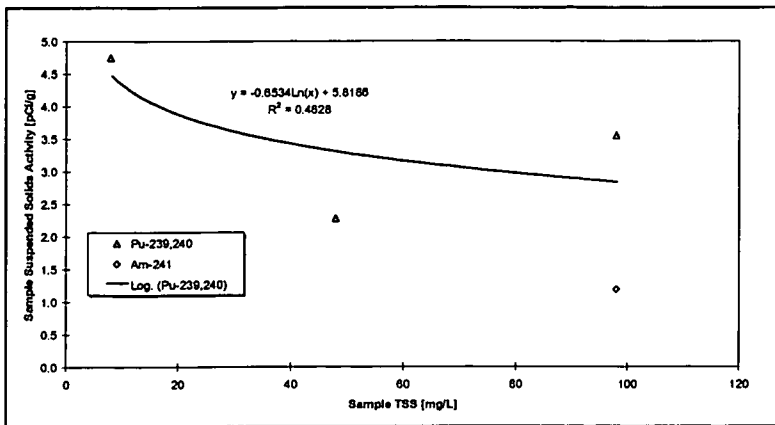
Figure 8-11. Variation of Suspended Solids Activity with TSS at GS27.



Location GS31

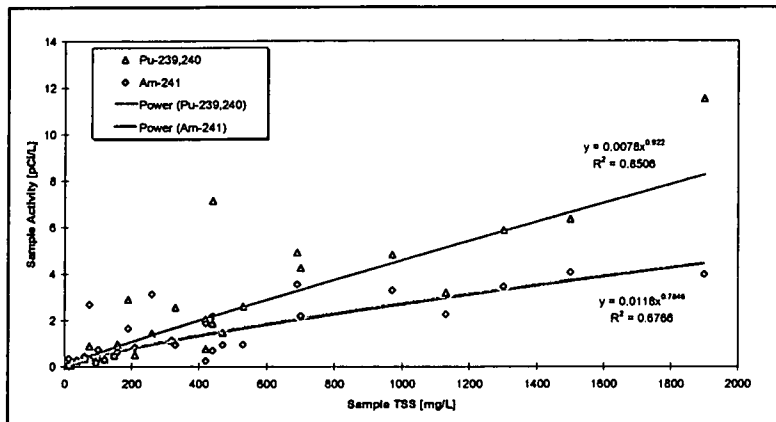
GS31 shows a strong correlation between increasing Pu activity and increasing TSS for the few points available. Only one Am-TSS data point was available.

Figure 8-12. Variation of Pu and Am with TSS at GS31.



GS31 shows a weak correlation between decreasing suspended solids activity and increasing TSS.

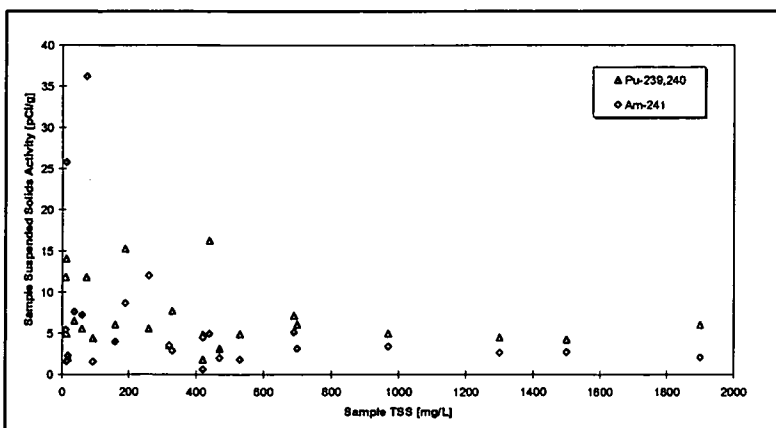
Figure 8-13. Variation of Suspended Solids Activity with TSS at GS31.



Location GS32

GS32 shows a good correlation between increasing Pu activity and increasing TSS. Similarly, a fair correlation exists between increasing Am activity and increasing TSS.

Figure 8-14. Variation of Pu and Am with TSS at GS32.



GS32 shows no statistically significant correlation between suspended solids activity and TSS.

Figure 8-15. Variation of Suspended Solids Activity with TSS at GS32.

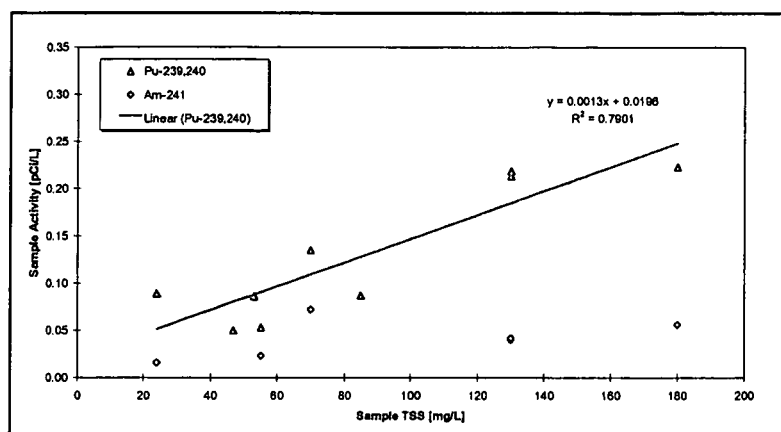


Figure 8-16. Variation of Pu and Am with TSS at GS38.

Location GS38

GS38 shows a good correlation between increasing Pu activity and increasing TSS for the few points available. However, no statistically significant correlation exists between Am activity and TSS.

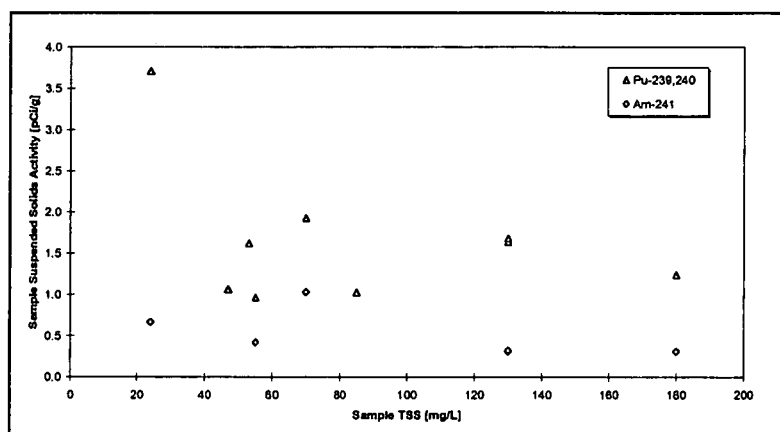


Figure 8-17. Variation of Suspended Solids Activity with TSS at GS38.

GS38 shows no statistically significant correlation between suspended solids activity and TSS.

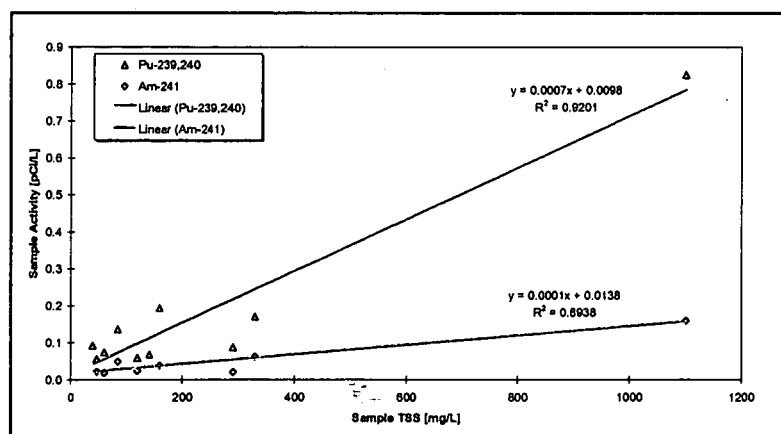
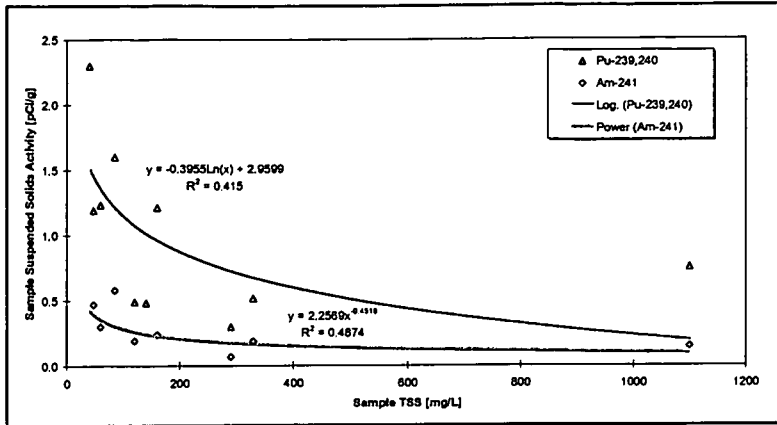


Figure 8-18. Variation of Pu and Am with TSS at GS39.

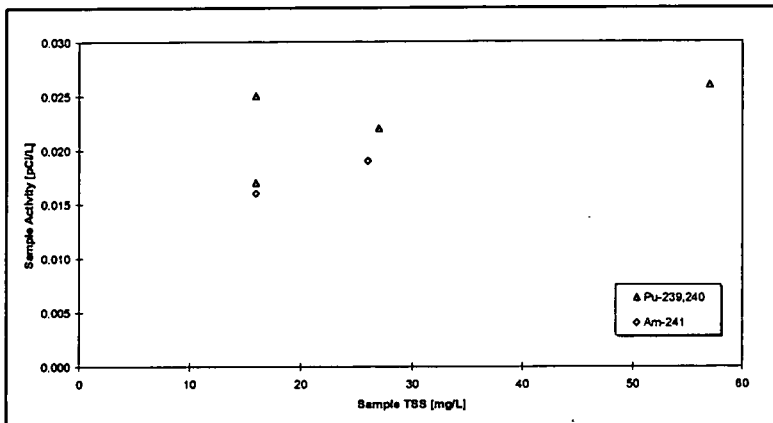
Location GS39

GS39 shows strong correlations between increasing Pu and Am activity with increasing TSS. However, both are highly influenced by a single data point.



GS39 shows weak correlations between *decreasing* Pu and Am with increasing TSS. This may be caused by the preferential association of Pu with smaller/lighter particles.

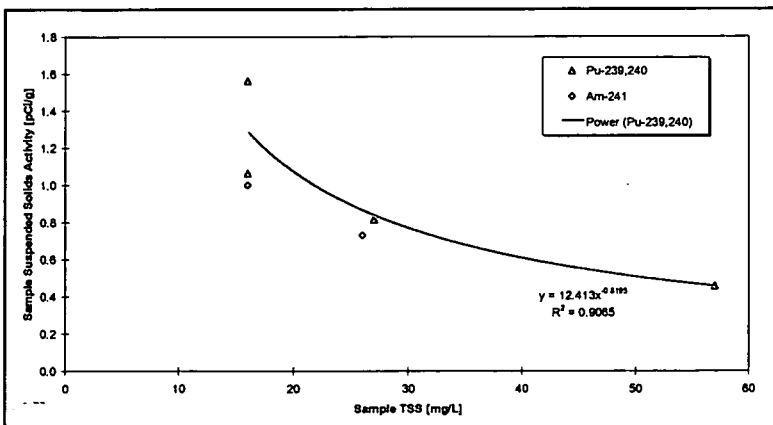
Figure 8-19. Variation of Suspended Solids Activity with TSS at GS39.



Location GS41

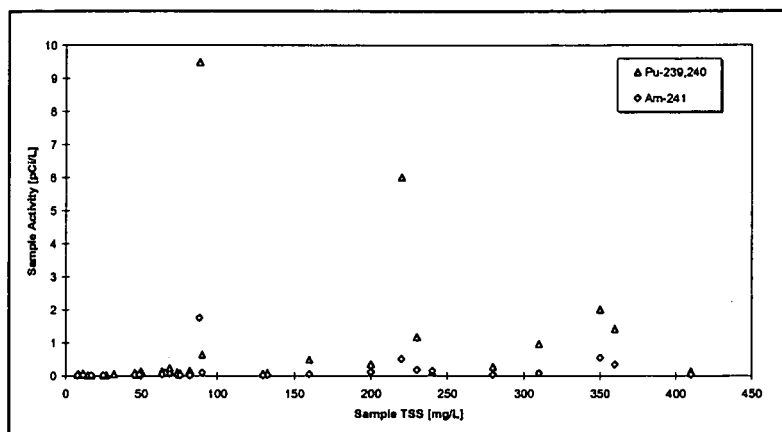
GS41 shows no statistically significant correlation between activity and TSS.

Figure 8-20. Variation of Pu and Am with TSS at GS41.



GS41 shows a strong correlation between *decreasing* Pu activity with increasing TSS for the relatively few data points available. Only two suspended solids Am points were available.

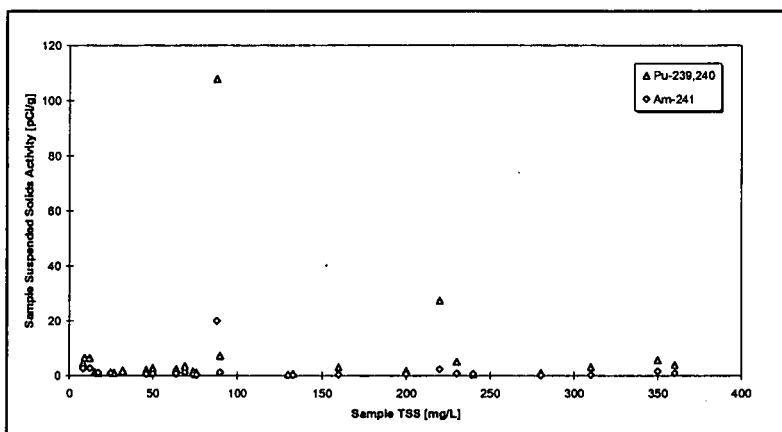
Figure 8-21. Variation of Suspended Solids Activity with TSS at GS41.



Location SW022

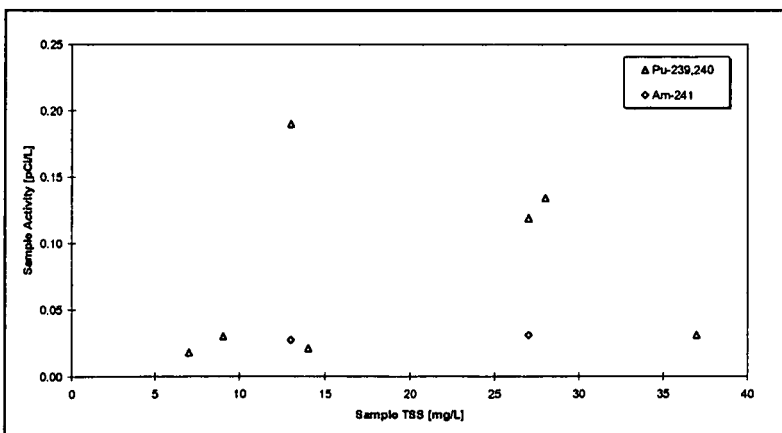
SW022 shows no statistically significant correlation between activity and TSS.

Figure 8-22. Variation of Pu and Am with TSS at SW022.



SW022 shows no statistically significant correlation between suspended solids activity and TSS.

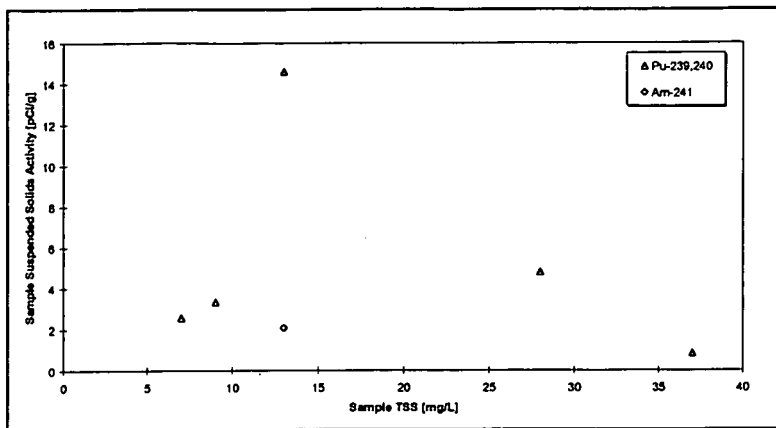
Figure 8-23. Variation of Suspended Solids Activity with TSS at SW022.



Location SW027

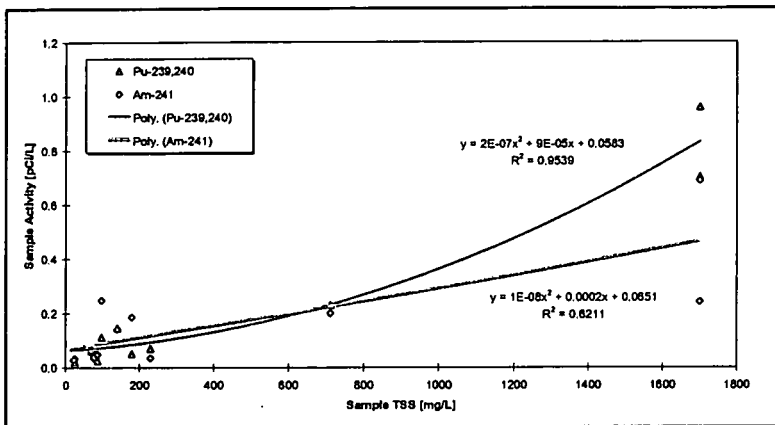
SW027 shows no statistically significant correlation between activity and TSS.

Figure 8-24. Variation of Pu and Am with TSS at SW027.



SW027 shows no statistically significant correlation between suspended solids activity and TSS.

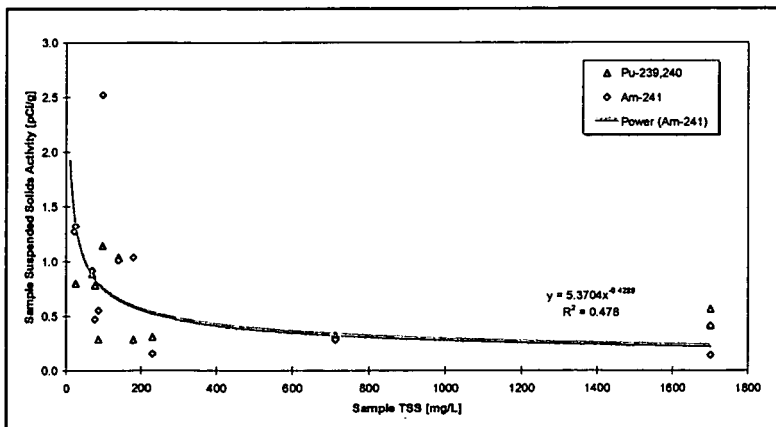
Figure 8-25. Variation of Suspended Solids Activity with TSS at SW027.



Location SW091

SW091 shows a strong correlation between increasing Pu activity and increasing TSS for the few points available. Similarly, a fair correlation exists between increasing Am activity and increasing TSS.

Figure 8-26. Variation of Pu and Am with TSS at SW091.



SW091 shows a weak correlation between decreasing suspended solids Am activity with increasing TSS. No statistically significant correlation is noted for suspended solids Pu activity and TSS.

Figure 8-27. Variation of Suspended Solids Activity with TSS at SW091.

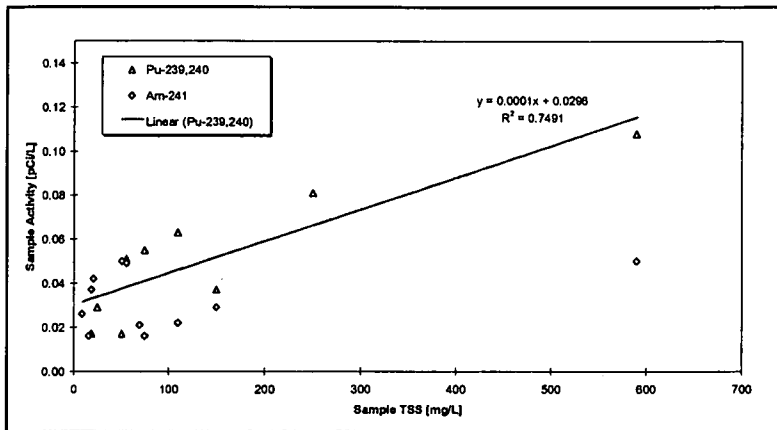


Figure 8-28. Variation of Pu and Am with TSS at SW093.

Location SW093

SW093 shows a good correlation between increasing Pu activity and increasing TSS for the few points available. However, no statistically significant correlation exists between Am activity and TSS.

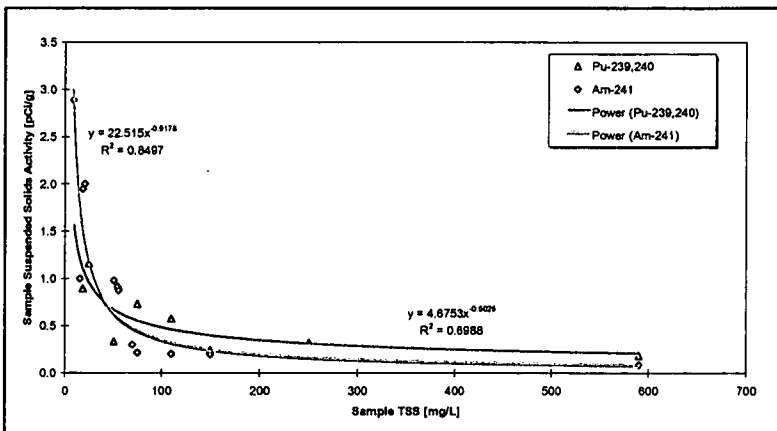


Figure 8-29. Variation of Suspended Solids Activity with TSS at SW093.

SW093 shows good correlations between *decreasing* Pu and Am with increasing TSS. This may be caused by the preferential association of Pu with smaller/lighter particles.

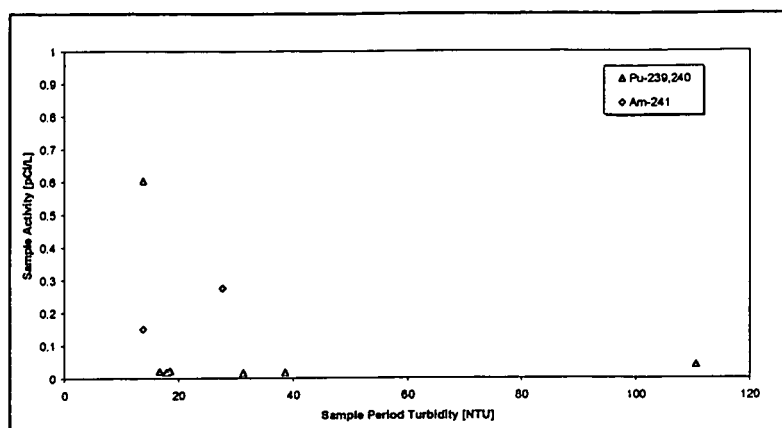
8.3.2 Correlation of Actinides with Turbidity

Since Pu and Am tend to be transported in surface water in association with particulate matter (measured as TSS), a relationship between activity and turbidity could be used as an indicator of Pu and Am transport. This section evaluates the variation of composite sample Pu and Am activity with the corresponding average real-time turbidity data. Plots are presented for all locations where turbidity data are collected. These locations are GS08, GS10, GS11, GS31, SW027, and SW093.

The sample Pu and Am activities are the values obtained through laboratory analysis given in pCi/L. Only Pu and Am values greater than the MDA (generally 0.015 pCi/L) are included.

The average composite-sample period turbidity (NTU) is calculated as follows:

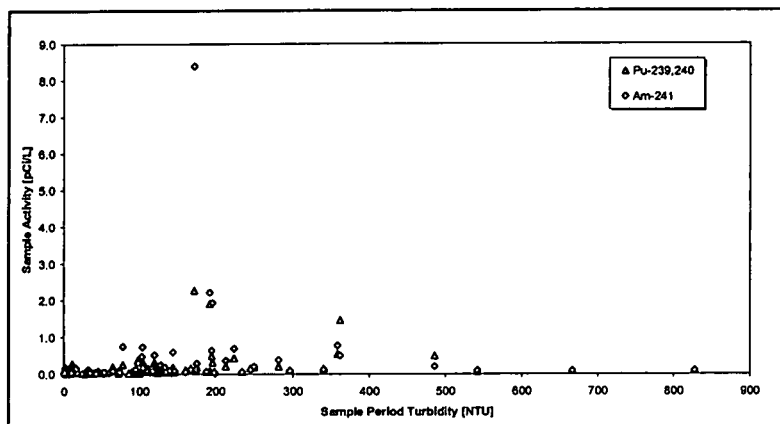
1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding turbidity value for each grab sample is interpolated from the 15-minute interval turbidity data. Some samples may not have turbidity values due to equipment failures and periodic equipment removal for winter icing conditions.
3. Since each grab sample is of the same volume (200 ml), the interpolated turbidity values are arithmetically averaged to obtain the applicable turbidity for the entire composite sampling period.



Location GS08

GS08 shows no statistically significant correlation between increasing activity and increasing turbidity.

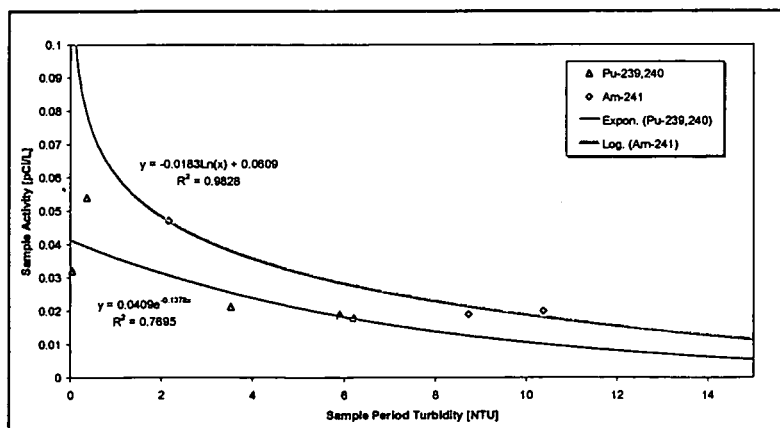
Figure 8-30. Variation of Pu and Am Activity with Turbidity at GS08.



Location GS10

GS10 also shows no statistically significant correlation between increasing activity and increasing turbidity.

Figure 8-31. Variation of Pu and Am Activity with Turbidity at GS10.



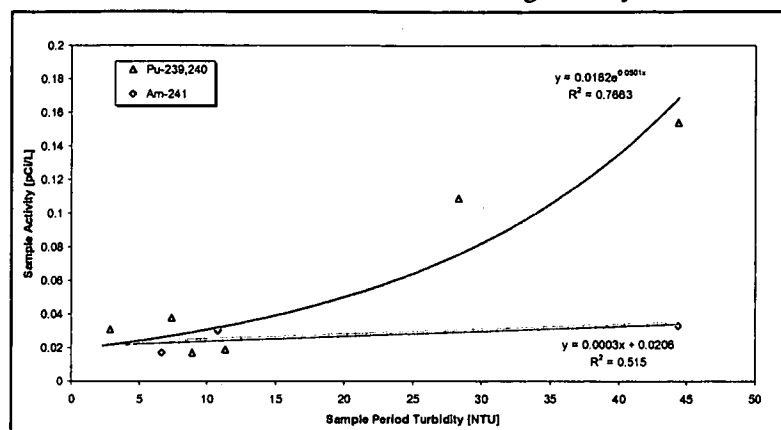
Location GS11

GS11 shows good correlation between *decreasing* activity and increasing turbidity for the limited number of data points available. The possible cause of this phenomena is not clear, though the correlations could be serendipitous due to the small number of data points.

Figure 8-32. Variation of Pu and Am Activity with Turbidity at GS11.

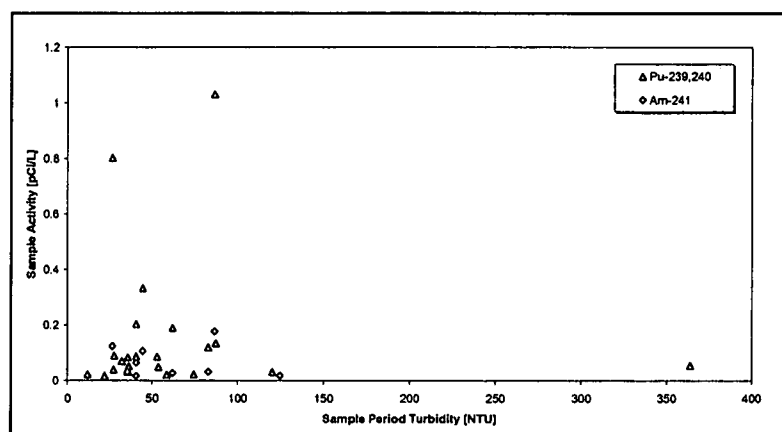
Location GS31

GS31 shows correlations between increasing activity and increasing turbidity for the limited number of data



points available. It should be noted that the two high points most influencing the correlations are associated with a sample collected during pond dewatering to allow for video surveillance of the outlet works. To achieve dewatering, the outlet works valve on the bottom (essentially in the pond bottom sediments) of the pond is used to drain the pond. At these low pond levels, higher turbidity values are expected. The other values are for samples collected during normal pump discharge operations where water is taken from the pond surface.

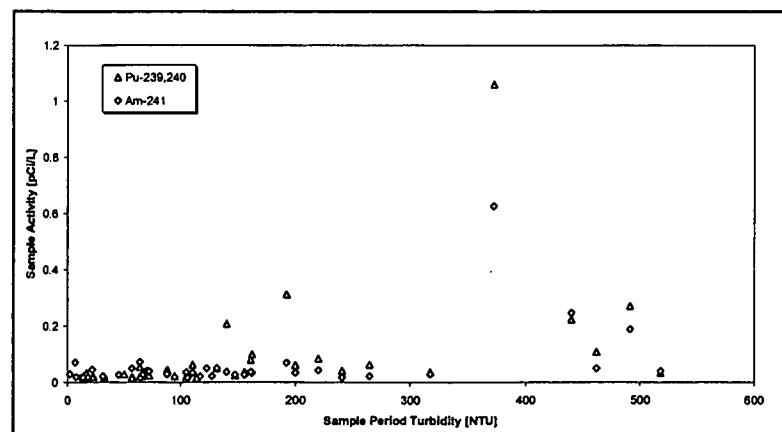
Figure 8-33. Variation of Pu and Am Activity with Turbidity at GS31.



Location SW027

SW027 also shows no statistically significant correlation between increasing activity and increasing turbidity.

Figure 8-34. Variation of Pu and Am Activity with Turbidity at SW027.



Location SW093

SW093 also shows no statistically significant correlation between increasing activity and increasing turbidity. However, the higher activities are generally associated with higher turbidities.

Figure 8-35. Variation of Pu and Am Activity with Turbidity at SW093.

8.3.3 Correlation of Radionuclides with Flow Rate

Since Pu and Am tend to be transported in surface water in association with particulate matter, and assuming that higher flow rates tend to transport more sediment, a relationship between activity and flow rate could be used as an indicator of Pu and Am transport. This section evaluates the variation of composite sample Pu and Am activity with the corresponding average flow rate. Plots are presented for all locations where both Pu and Am data are collected with flow measurement.

The sample Pu and Am activities are the values obtained through laboratory analysis given in pCi/L. Only Pu and Am values greater than the MDA (generally 0.015 pCi/L) are included.

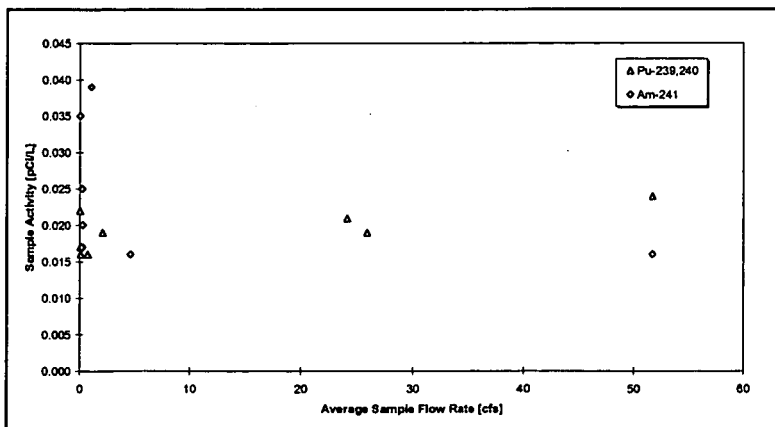
Plots are also presented showing the variability of total uranium with flow rate. Plots are presented for all locations where uranium data are collected with flow measurement.

The sample total uranium activity is the sum of the isotopic values obtained through laboratory analysis given in pCi/L (U-233,234 + U-235 + U-238).

The average composite-sample period flow rate (CFS) is calculated as follows:

1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding flow value for each grab sample is interpolated from the 15-minute interval flow data. Some samples may not have flow values due to equipment failures and periodic winter icing conditions.
3. Since each grab sample is of the same volume (200 ml), the interpolated flow values are arithmetically averaged to obtain the applicable flow for the entire composite sampling period.

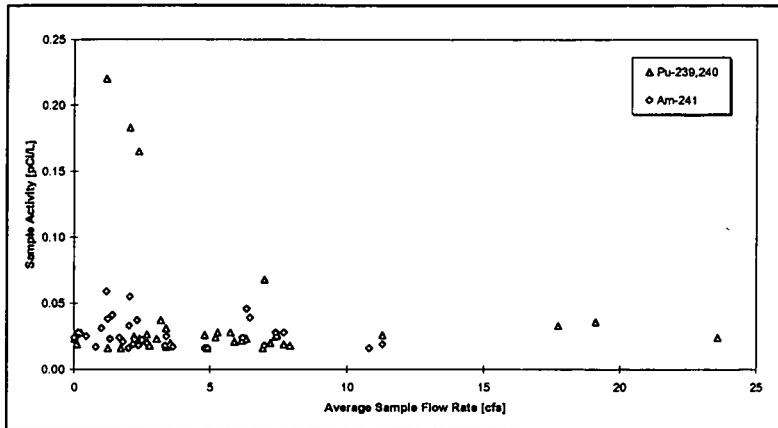
Only locations that had greater than two data pairs are plotted. As such, Pu and Am plots are not presented for locations GS42, GS51, GS52, GS53, GS54, and SW055. Similarly, uranium plots are not presented for locations GS39, GS51, GS52, GS53, GS54, and SW055.



Location GS01

GS01 shows no statistically significant correlation between Pu and Am activity with flow rate.

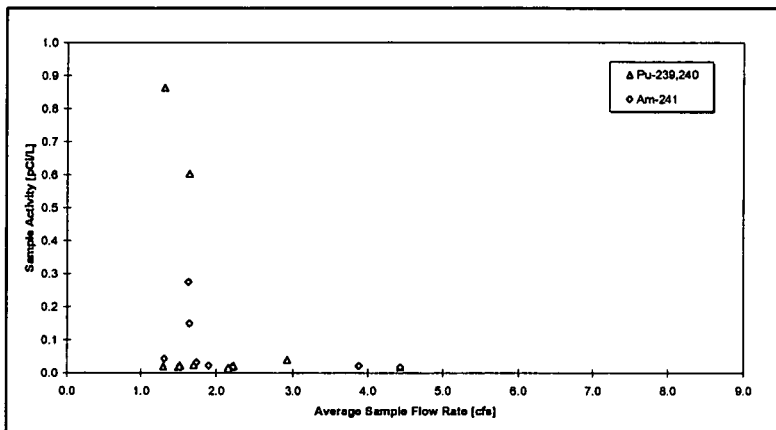
Figure 8-36. Variation of Pu and Am with Flow Rate at GS01.



Location GS03

GS03 shows no statistically significant correlation between Pu and Am activity with flow rate.

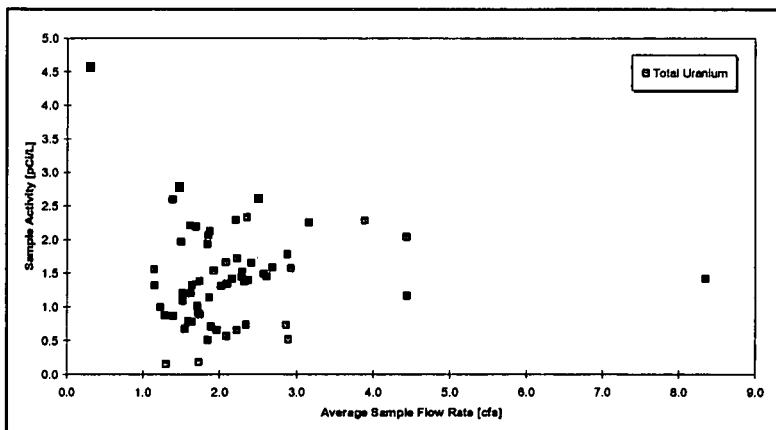
Figure 8-37. Variation of Pu and Am with Flow Rate at GS03.



Location GS08

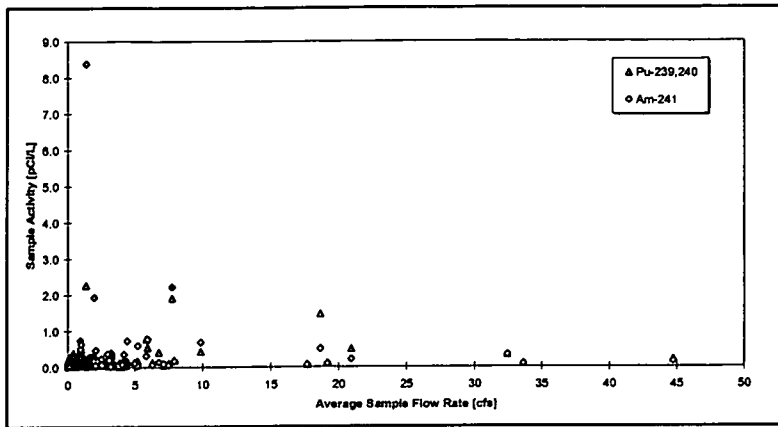
GS08 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-38. Variation of Pu and Am with Flow Rate at GS08.



GS08 shows no statistically significant correlation between uranium activity and flow rate.

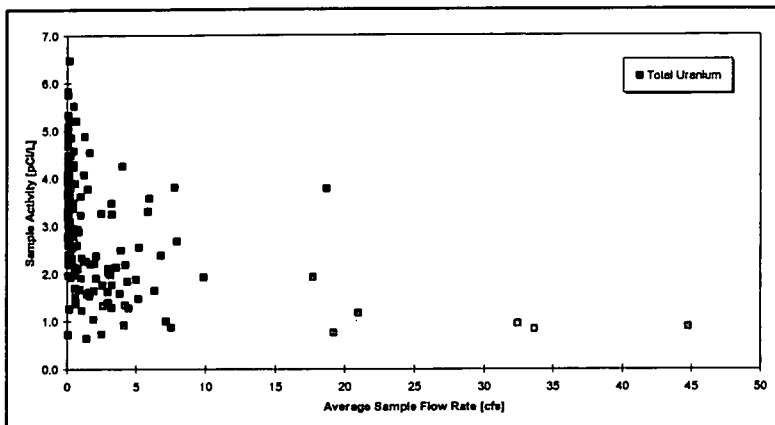
Figure 8-39. Variation of Total Uranium with Flow Rate at GS08.



Location GS10

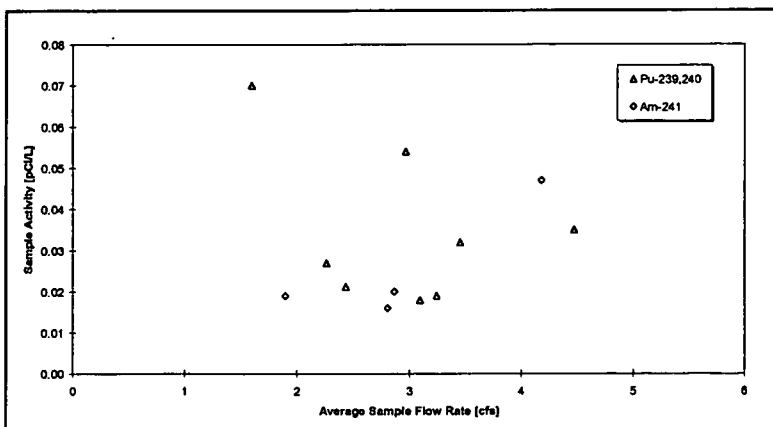
GS10 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-40. Variation of Pu and Am with Flow Rate at GS10.



GS10 shows no statistically significant correlation between uranium and flow rate.

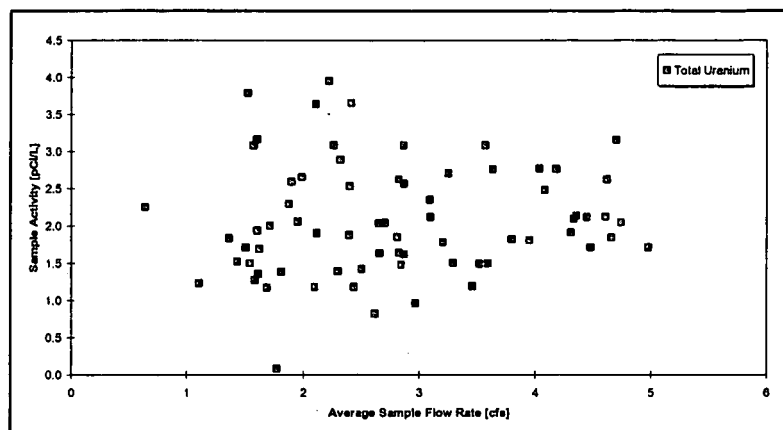
Figure 8-41. Variation of Total Uranium with Flow Rate at GS10.



Location GS11

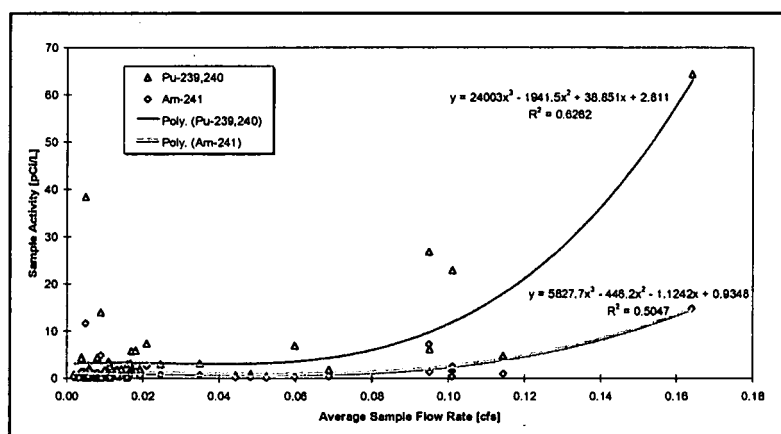
GS11 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-42. Variation of Pu and Am with Flow Rate at GS11.



GS11 shows no statistically significant correlation between uranium and flow rate.

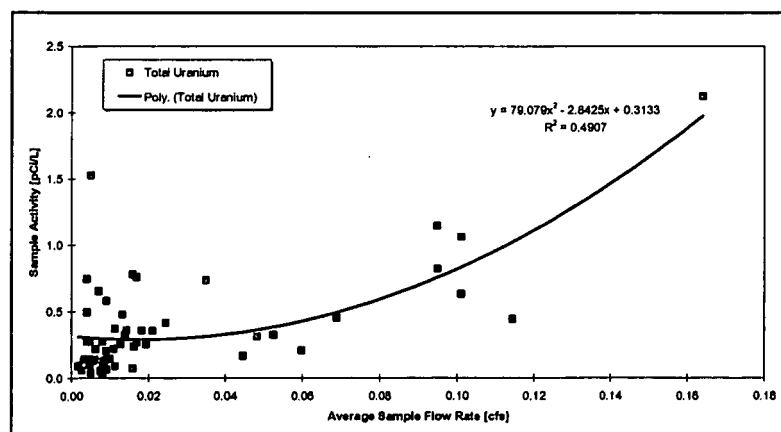
Figure 8-43. Variation of Total Uranium with Flow Rate at GS11.



Location GS27

GS27 shows fair correlations between increasing Pu and Am activity with increasing flow rate. However, several of the higher activities are associated with relatively low flow rates.

Figure 8-44. Variation of Pu and Am with Flow Rate at GS27.



GS27 shows a weak correlation between increasing uranium activity and increasing flow rate.

Figure 8-45. Variation of Total Uranium with Flow Rate at GS27.

Location GS31

GS31 shows a good correlation between *decreasing* Am activity and increasing flow rate for the limited number of data points available. It should be noted that the two higher Am activity points most influencing the correlation are associated with samples collected during pond dewatering to allow for video surveillance of the outlet works. To achieve dewatering, the outlet works valve on the bottom (essentially in the pond bottom sediments) of the pond is used to drain the pond. At these low pond levels, higher turbidity values as an

indication of suspended solids, are expected (Figure 8-33). Since Pu and Am tend to be transported in association with particulate matter, the higher activities are expected. The other values are for samples collected during normal pump discharge operations where water is taken from the pond surface.

For Pu, GS31 shows no statistically significant correlation. The highest Pu values are also associated with valve test samples (the Am value for the valve test sample at 4.7 cfs was not above the MDA and was not included).

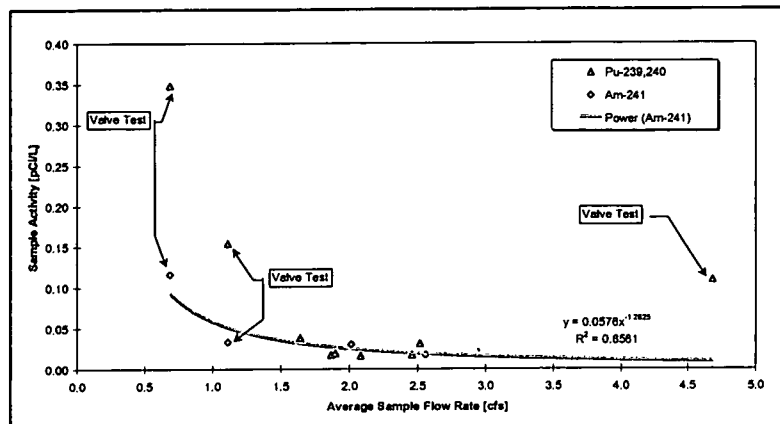
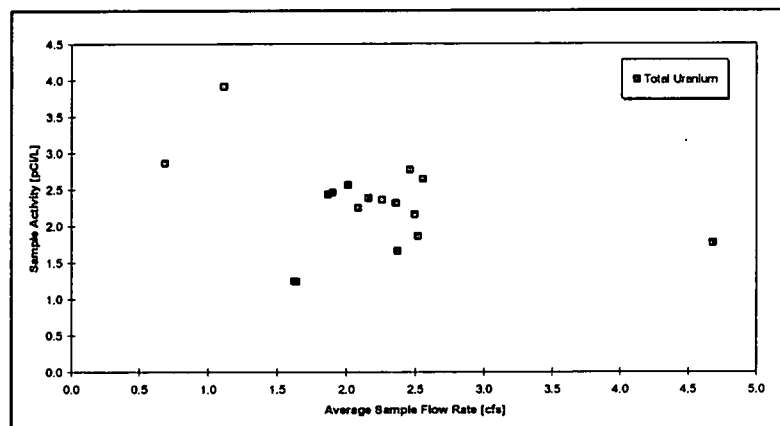
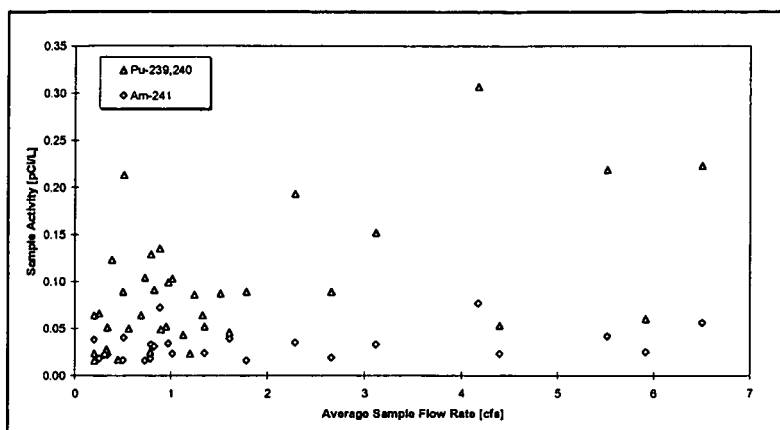


Figure 8-46. Variation of Pu and Am with Flow Rate at GS31.



GS31 shows no statistically significant correlation between uranium and flow rate.

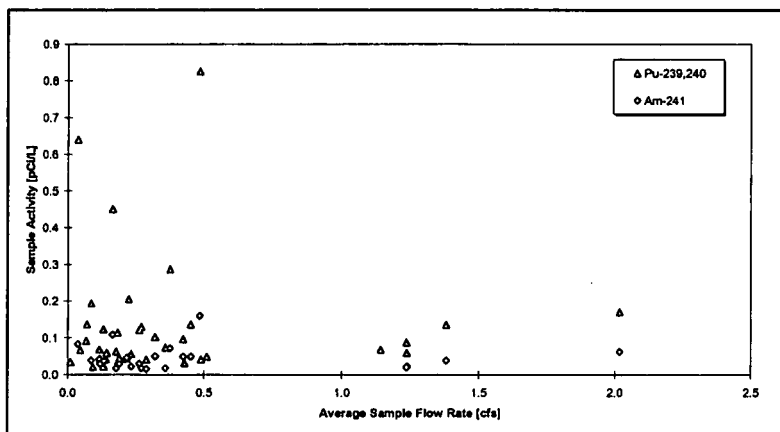
Figure 8-47. Variation of Total Uranium with Flow Rate at GS31.



Location GS38

GS38 shows no statistically significant correlation between activity and flow rate.

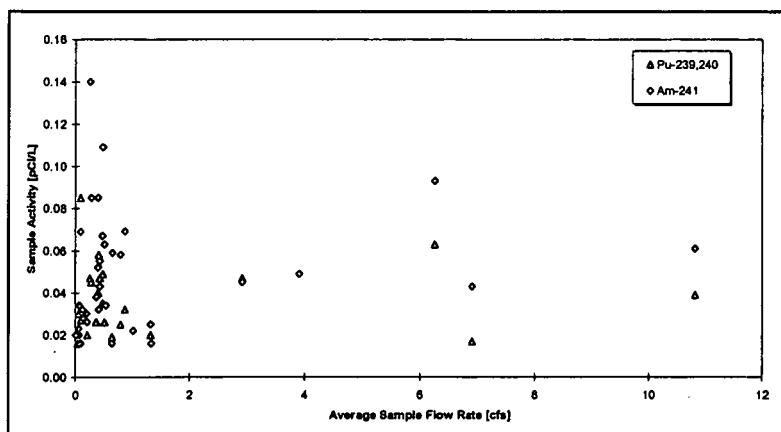
Figure 8-48. Variation of Pu and Am with Flow Rate at GS38.



Location GS39

GS39 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-49. Variation of Pu and Am with Flow Rate at GS39.



Location GS40

GS40 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-50. Variation of Pu and Am with Flow Rate at GS40.

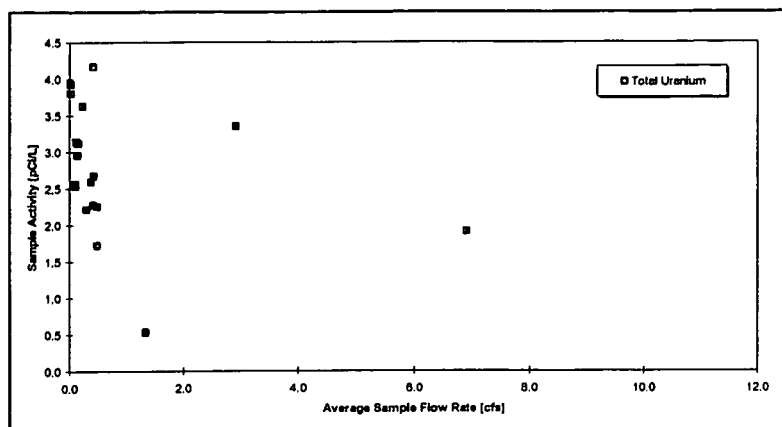


Figure 8-51. Variation of Total Uranium with Flow Rate at GS40.

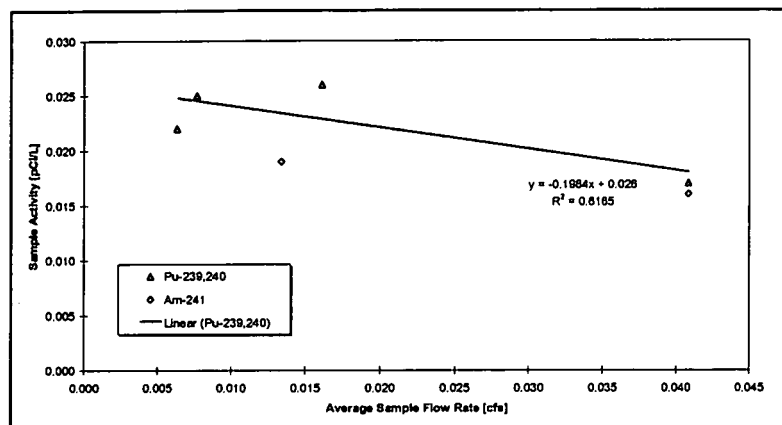


Figure 8-52. Variation of Pu and Am with Flow Rate at GS41.

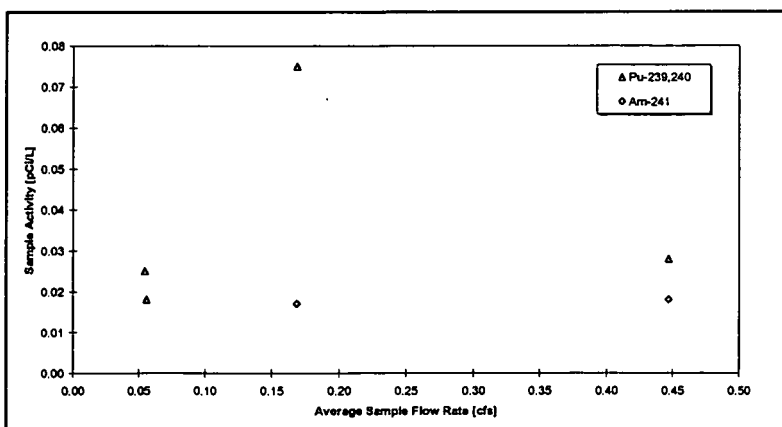


Figure 8-53. Variation of Pu and Am with Flow Rate at GS43.

GS40 shows no statistically significant correlation between total uranium activity with flow rate.

Location GS41

GS41 shows little change in Pu activity depending on flow rate. Only two Am points were available for the evaluation.

Location GS43

GS43 shows no statistically significant correlation between Pu and Am activity with flow rate.

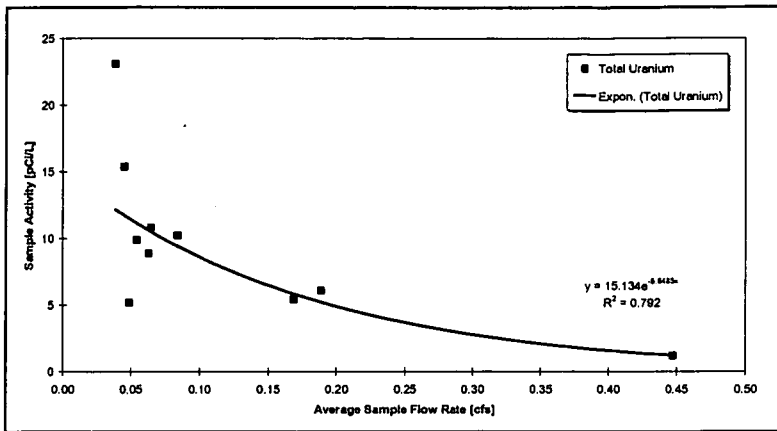


Figure 8-54. Variation of Total Uranium with Flow Rate at GS43.

GS43 shows a good correlation between *decreasing* uranium activity and increasing flow rate. GS43 receives pumped footing drain discharges from the 886 and 865 building cluster, as well as runoff. If naturally occurring (or possibly anthropogenic) uranium is associated with these footing drain flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff during large precipitation events.

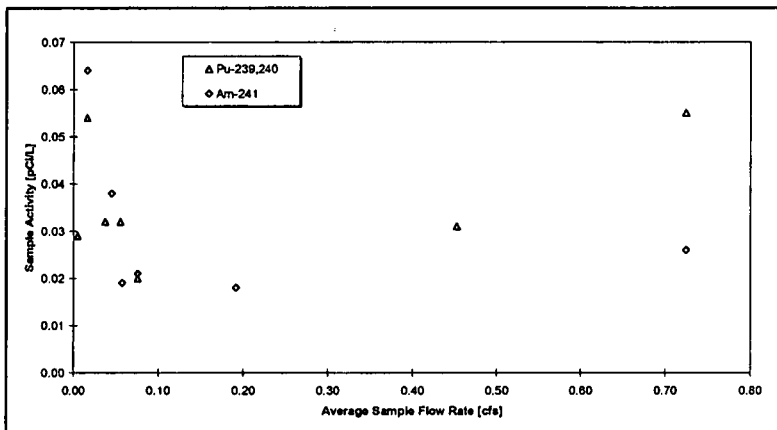


Figure 8-55. Variation of Pu and Am with Flow Rate at GS44.

Location GS44

GS44 shows no statistically significant correlation between Pu and Am activity with flow rate.

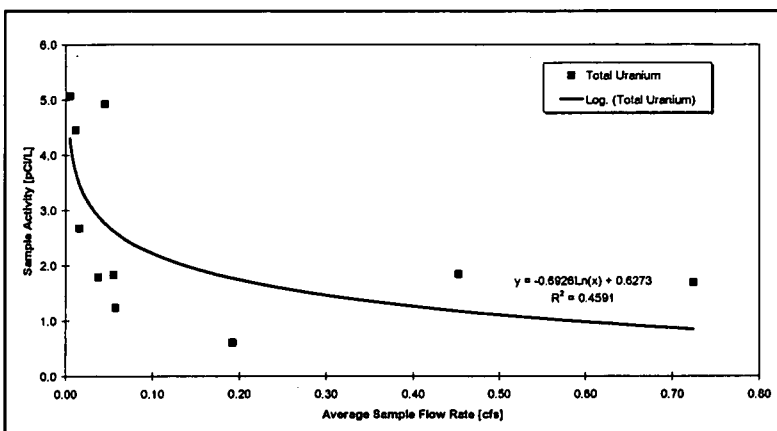
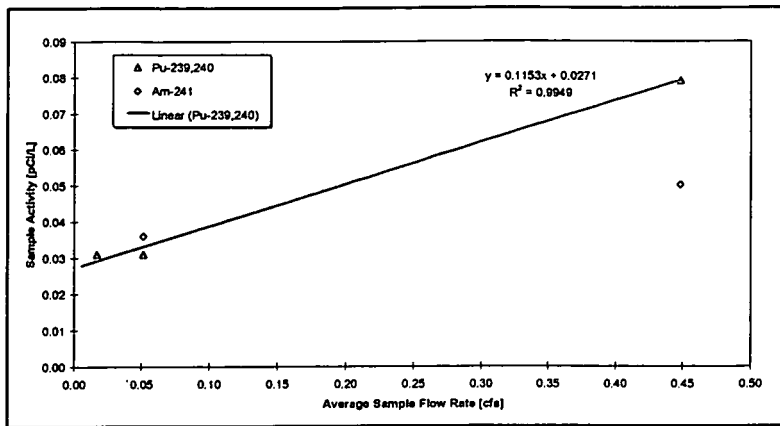


Figure 8-56. Variation of Total Uranium with Flow Rate at GS44.

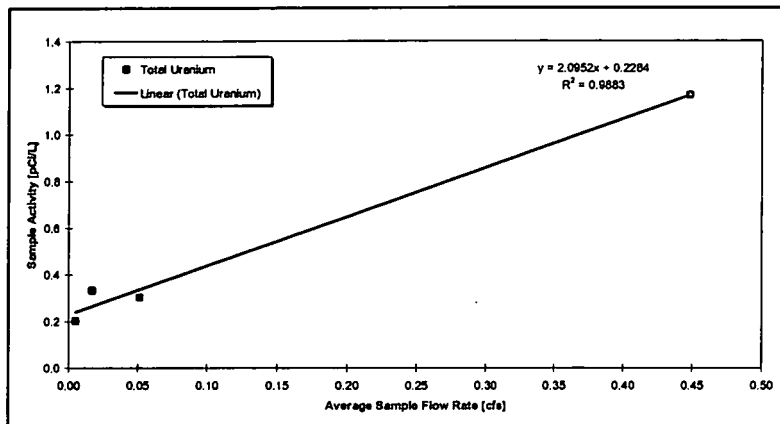
GS44 shows a weak correlation between *decreasing* uranium activity and increasing flow rate. GS44 receives footing drain discharge from B771, as well as runoff. If naturally occurring (or possibly anthropogenic) uranium is associated with these footing drain flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff during large precipitation events.



Location GS49

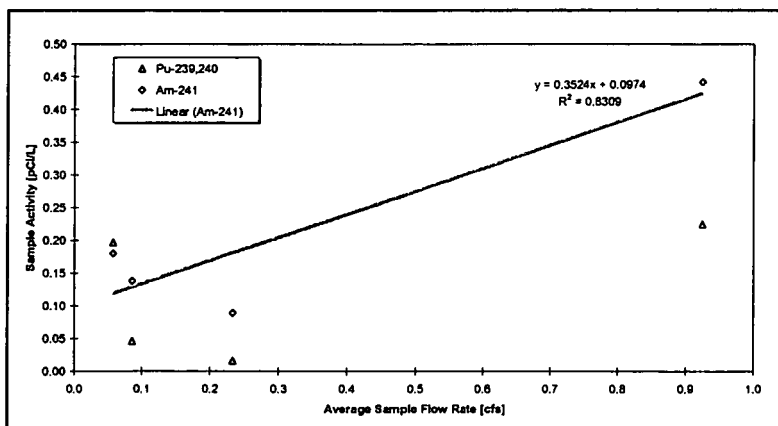
GS49 shows a strong correlation between increasing Pu activity and increasing flow rate. However, the correlation is strongly influenced by a single point. Only two Am results were greater than the MDA for the evaluation.

Figure 8-57. Variation of Pu and Am with Flow Rate at GS49.



GS49 shows a strong correlation between increasing total uranium activity and increasing flow rate. However, the correlation is strongly influenced by a single point.

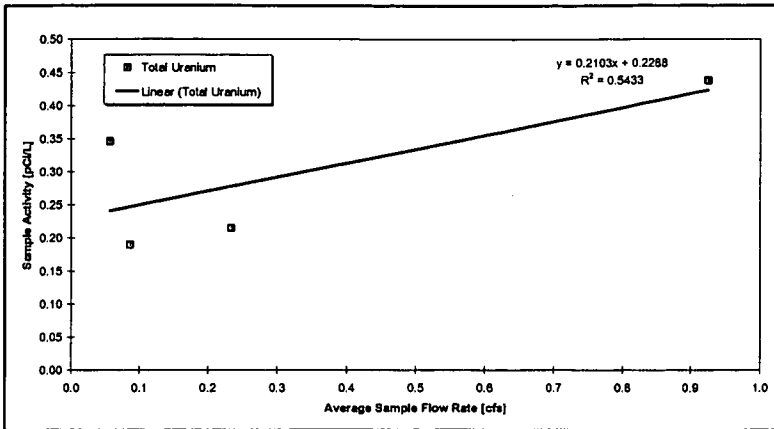
Figure 8-58. Variation of Total Uranium with Flow Rate at GS49.



Location GS50

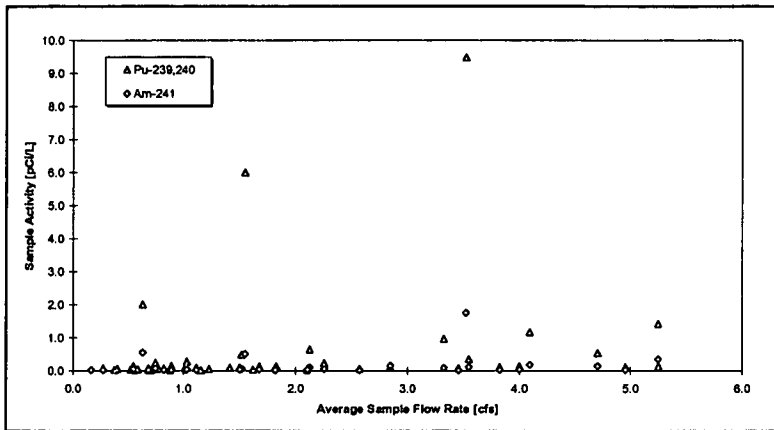
GS50 shows a good correlation between increasing Am activity and increasing flow rate. However, the correlation is strongly influenced by a single point. No statistically significant correlation was noted for Pu.

Figure 8-59. Variation of Pu and Am with Flow Rate at GS50.



GS50 shows a fair correlation between increasing total uranium activity and increasing flow rate. However, the correlation is strongly influenced by a single point.

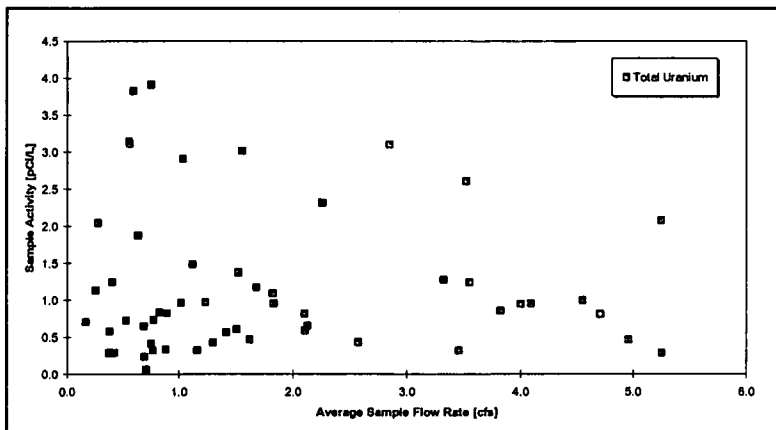
Figure 8-60. Variation of Total Uranium with Flow Rate at GS50.



Location SW022

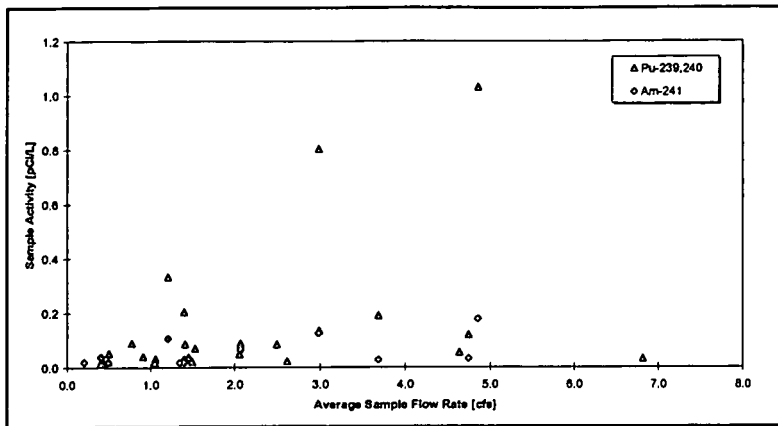
SW022 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-61. Variation of Pu and Am with Flow Rate at SW022.



SW022 shows no statistically significant correlation between uranium and flow rate.

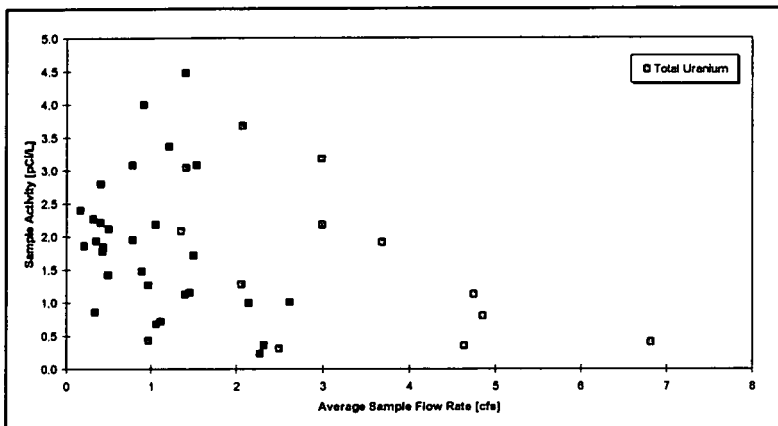
Figure 8-62. Variation of Total Uranium with Flow Rate at SW022.



Location SW027

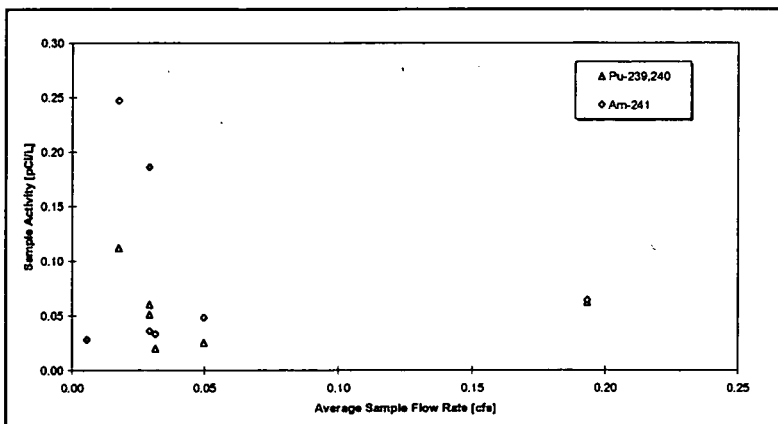
SW027 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-63. Variation of Pu and Am with Flow Rate at SW027.



SW027 shows a weak trend between decreasing uranium activity and increasing flow rate. Baseflow (low flow rates) at SW027 is sustained in the spring by footing drain flows (400 Area) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff.

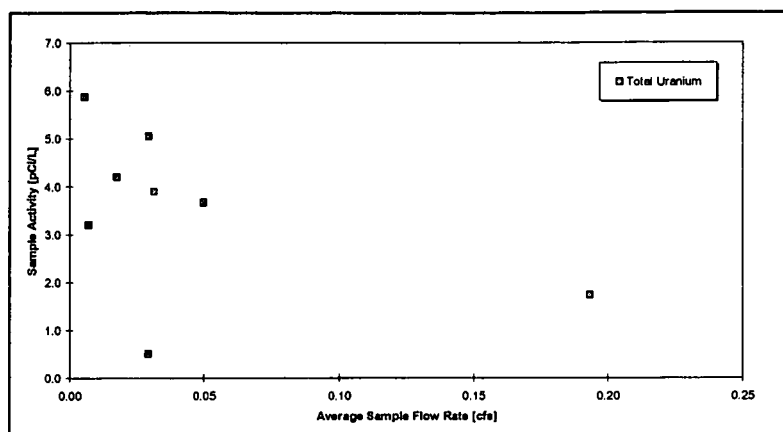
Figure 8-64. Variation of Total Uranium with Flow Rate at SW027.



Location SW091

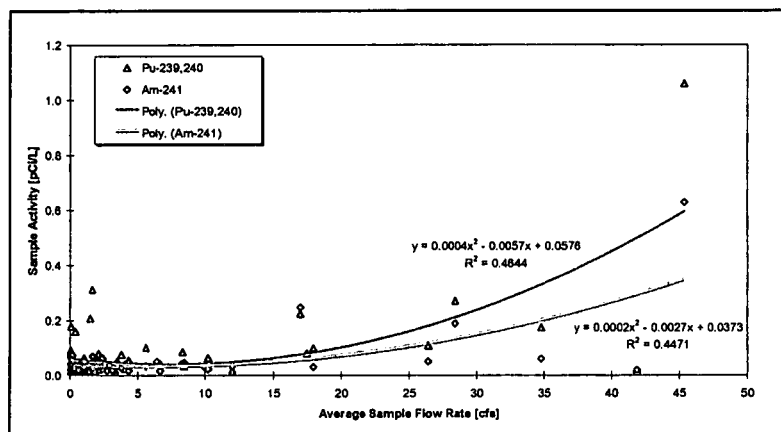
SW091 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-65. Variation of Pu and Am with Flow Rate at SW091.



SW091 shows no statistically significant correlation between total uranium and flow rate.

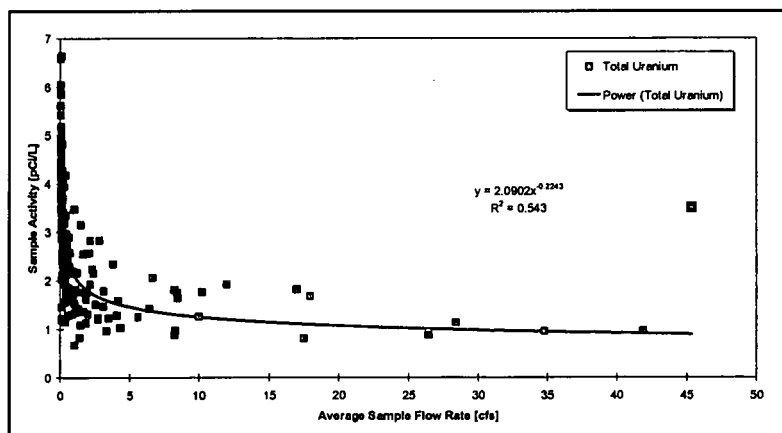
Figure 8-66. Variation of Total Uranium with Flow Rate at SW091.



Location SW093

SW093 shows weak correlations between increasing Pu and Am activity with increasing flow rate.

Figure 8-67. Variation of Pu and Am with Flow Rate at SW093.



SW093 shows a fair trend between decreasing uranium activity and increasing flow rate. Baseflow (low flow rates) at SW093 is sustained by footing drain flows (northern IA) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff. The highest activities are associated with the lowest flows.

Figure 8-68. Variation of Total Uranium with Flow Rate at SW093.

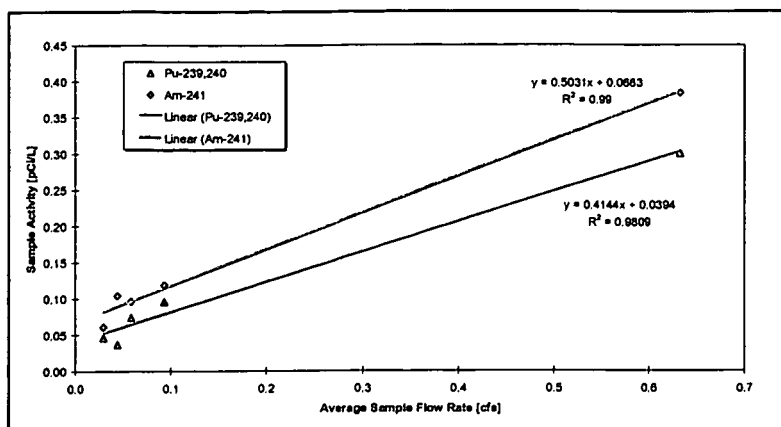


Figure 8-69. Variation of Pu and Am with Flow Rate at SW119.

Location SW119

SW119 shows strong correlations between increasing Pu and Am activity and increasing flow rate for the limited number of points available. However, the correlations are strongly influenced by a single point.

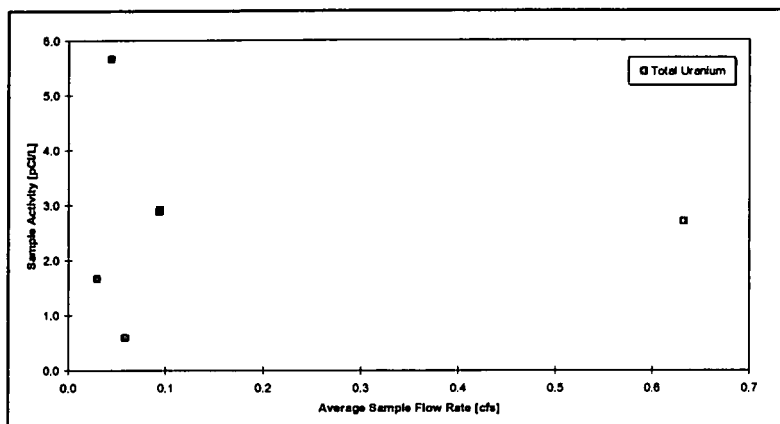


Figure 8-70. Variation of Total Uranium with Flow Rate at SW119.

SW119 shows no statistically significant correlation between total uranium and flow rate.

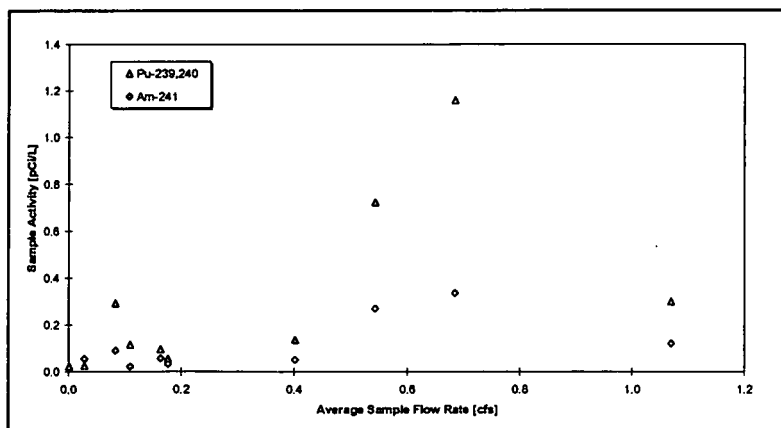
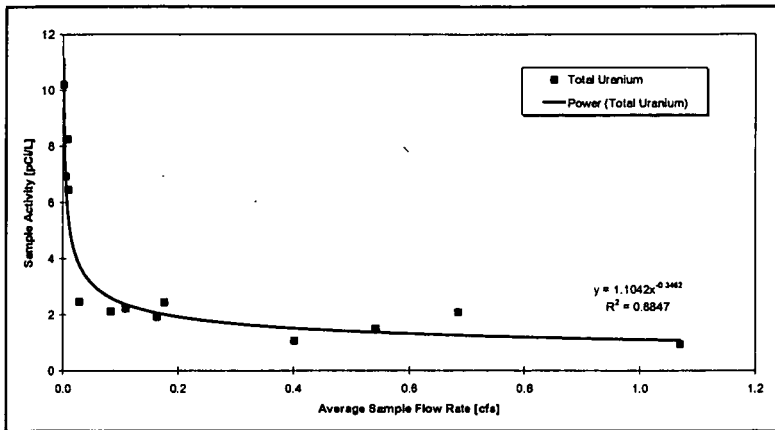


Figure 8-71. Variation of Pu and Am with Flow Rate at SW120.

Location SW120

SW120 shows no statistically significant correlation between Pu and Am activity with flow rate. However, the higher activities tend to be associated with the higher flow rates.



SW120 shows a good correlation between *decreasing* uranium activity and increasing flow rate for the few points available. Baseflow (low flow rates) at SW120 is mostly made up of flows passing through Bowman's Pond which is sustained by footing drain flows (771/774 area) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff.

Figure 8-72. Variation of Total Uranium with Flow Rate at SW120.

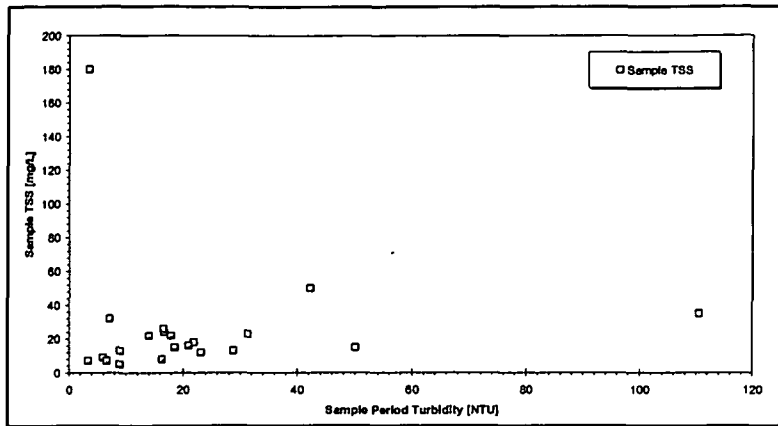
8.3.4 Correlation of TSS with Turbidity

Since many contaminants tend to be transported in surface water in association with particulate matter (measured as TSS) and turbidity is an indicator of TSS, a relationship between TSS and turbidity could be used as an indicator of contaminant transport. This section evaluates the variation of composite sample TSS with the corresponding average real-time turbidity data. Plots are presented for all locations where turbidity data are collected. These locations are GS08, GS10, GS11, GS31, SW027, and SW093.

The sample TSS is the value obtained through laboratory analysis given in mg/L. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the above locations were analyzed for TSS. Only TSS values greater than the detection limit (generally 5 mg/L) are included.

The average composite sample period turbidity (NTU) is calculated as follows:

1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding turbidity value for each grab sample is interpolated from the 15-minute interval turbidity data. Some TSS samples may not have turbidity values due to equipment failures and periodic equipment removal for winter icing conditions.
3. Since each grab sample is of the same volume (200 ml), the interpolated turbidity values are arithmetically averaged to obtain the applicable turbidity for the entire composite sampling period.



Location GS08

GS08 does not show a strong relationship due to a single point with high TSS and low turbidity (Figure 8-73). This may have been caused by the sample intake temporarily sucking streambed sediments while the corresponding turbidity was measured higher in the water column.

Figure 8-73. Variation of TSS with Turbidity at GS08.

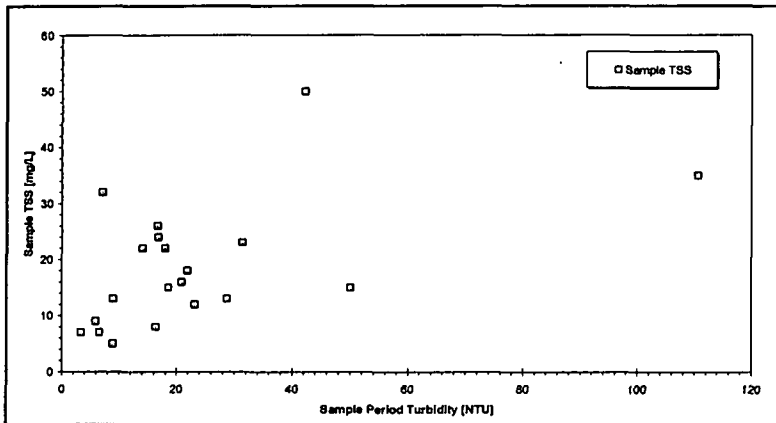
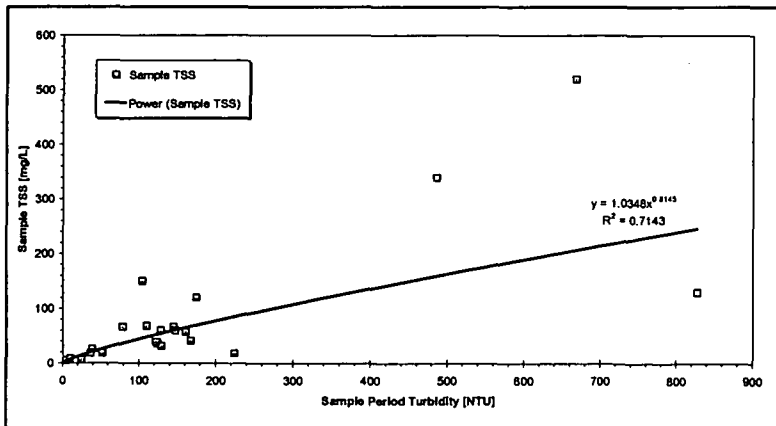


Figure 8-74 shows the GS08 data with the point noted above removed from the evaluation. However, no statistically significant correlation is noted.

Figure 8-74. Variation of TSS with Turbidity at GS08: Data Subset.



Location GS10

GS10 shows a good correlation between increasing TSS and increasing turbidity.

Figure 8-75. Variation of TSS with Turbidity at GS10.

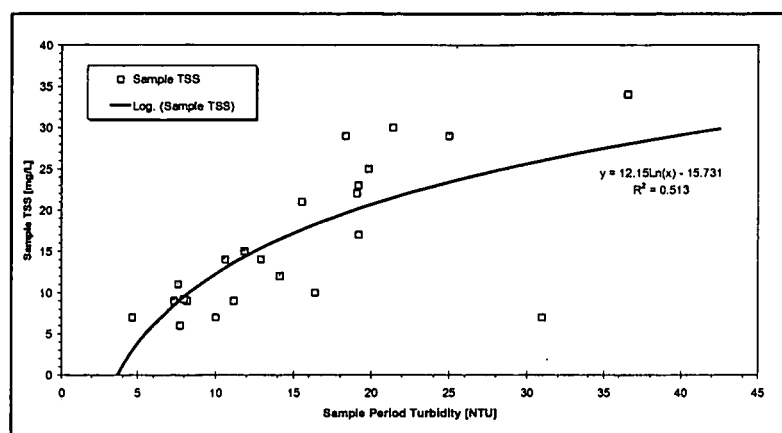


Figure 8-76. Variation of TSS with Turbidity at GS11.

Location GS11

GS11 shows a fair correlation between increasing TSS and increasing turbidity.

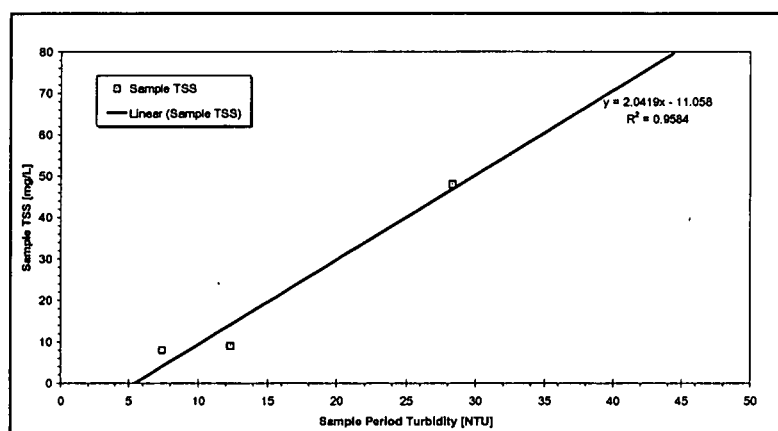


Figure 8-77. Variation of TSS with Turbidity at GS31.

Location GS31

GS31 shows a strong correlation between increasing TSS and increasing turbidity for the few points available.

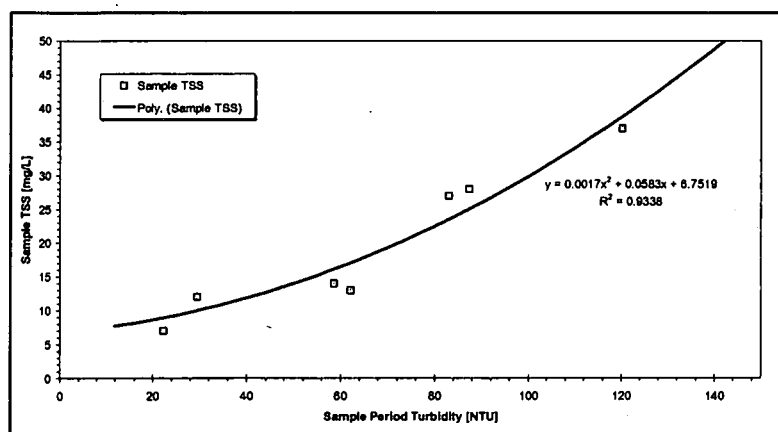


Figure 8-78. Variation of TSS with Turbidity at SW027.

Location SW027

SW027 shows a strong correlation between increasing turbidity and increasing TSS.

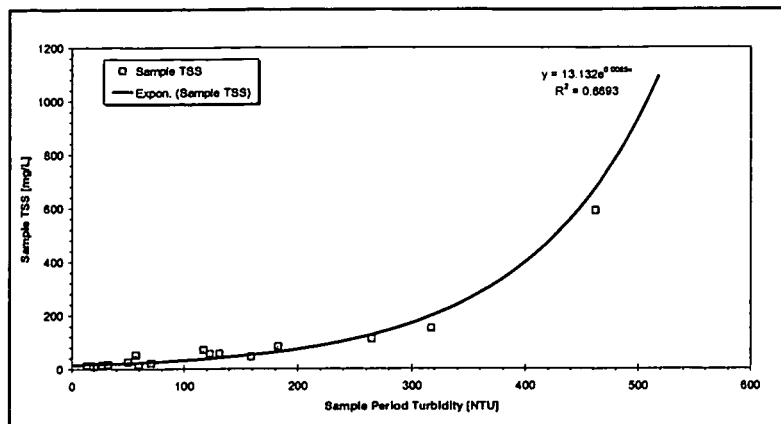


Figure 8-79. Variation of TSS with Turbidity at SW093.

Location SW093

SW093 also shows a good correlation between increasing turbidity and increasing TSS, although the relationship is influenced by a few higher points.

8.3.5 Correlation of TSS with Flow Rate

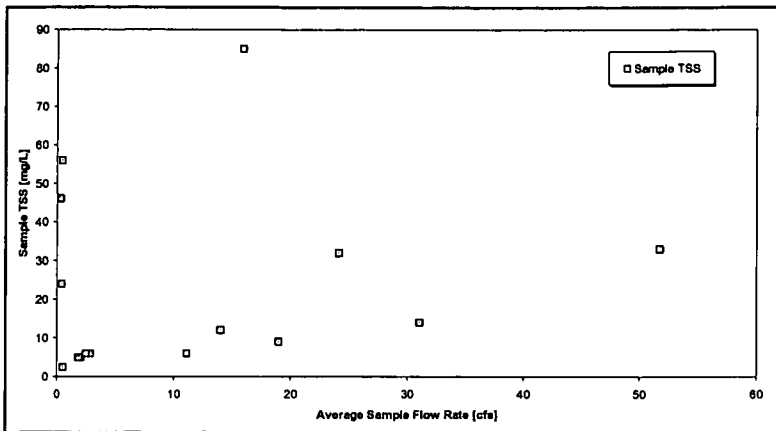
Since many contaminants tend to be transported in surface water in association with particulate matter (measured as TSS), if a relationship between TSS and flow rate could be established, then flow could be used as an indicator of contaminant transport. This section evaluates the variation of composite sample TSS with the corresponding average flow rate. Plots are presented for all locations where both flow and TSS data are collected.

The sample TSS is the value obtained through laboratory analysis given in mg/L. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations evaluated were analyzed for TSS. Only TSS values greater than the detection limit (generally 5 mg/L) are included.

The average composite sample period flow rate (CFS) is calculated as follows:

1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding flow value for each grab sample is interpolated from the 15-minute interval flow data. Some TSS samples may not have flow values due to equipment failures and poor flow data due to winter icing conditions.
3. Since each grab sample is of the same volume (200 ml for flow-paced composites and generally 1L for storm-event composites), the interpolated flow values are arithmetically averaged to obtain the applicable flow for the entire composite sampling period.

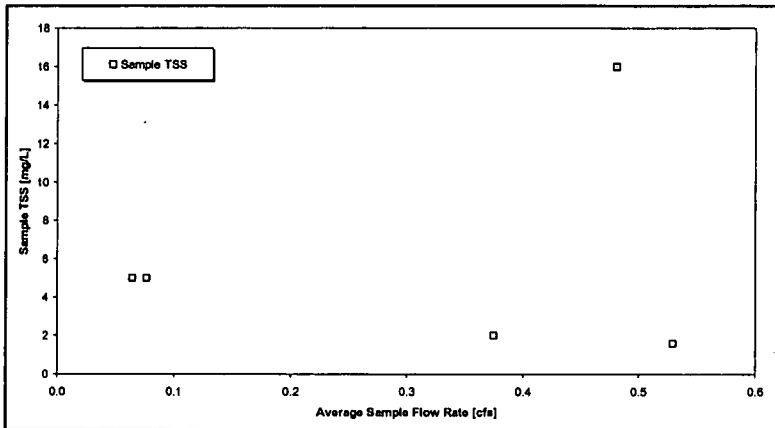
GS40, GS42, GS44, GS49, GS50, GS51, GS52, GS53, GS54, SW055, SW119, and SW120 are not presented below, as there were less than two TSS-flow data points at these locations



Location GS01

GS01 shows a general increase in TSS with increasing flow rate, although there is no statistically significant correlation.

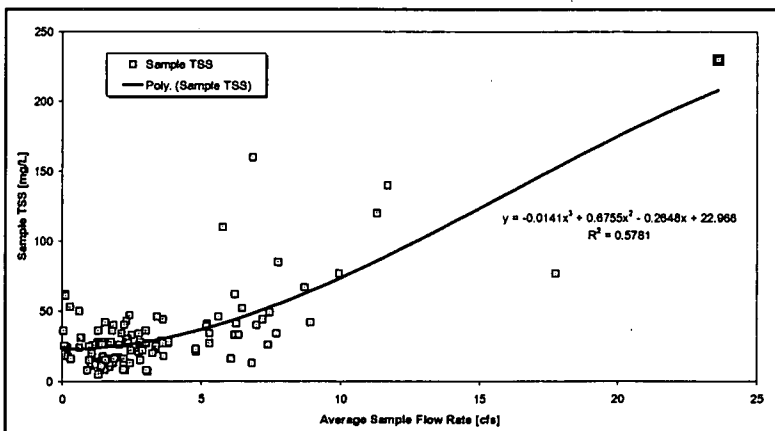
Figure 8-80. Variation of TSS with Flow Rate at GS01.



Location GS02

GS02 shows no statistically significant correlation between TSS and increasing flow rate.

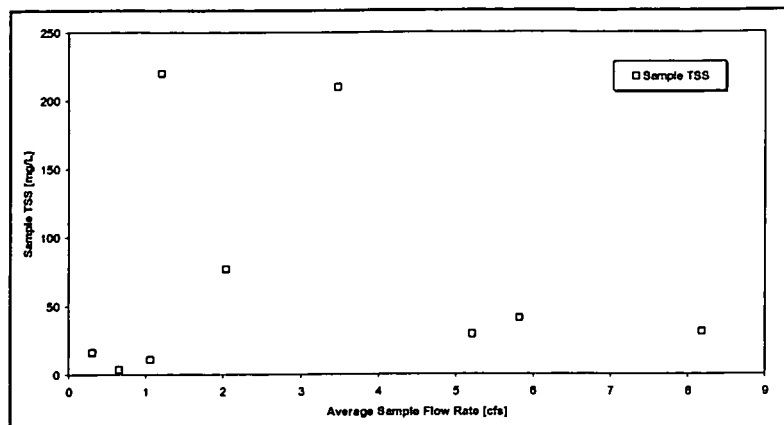
Figure 8-81. Variation of TSS with Flow Rate at GS02.



Location GS03

GS03 shows a fair correlation between increasing TSS and increasing flow rate.

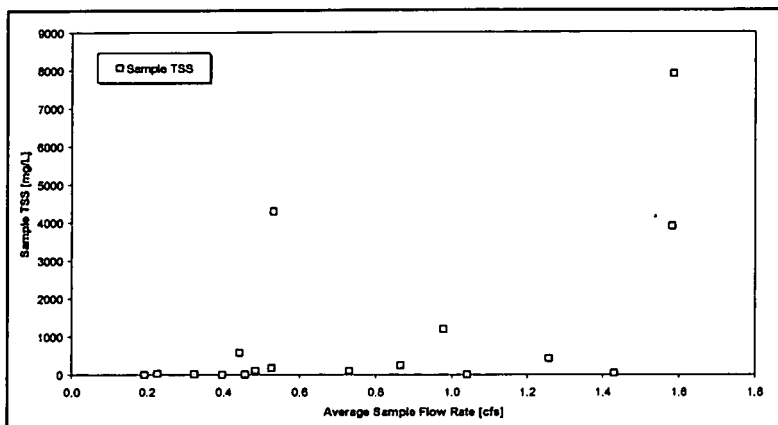
Figure 8-82. Variation of TSS with Flow Rate at GS03.



Location GS04

GS04 shows no statistically significant correlation between TSS and increasing flow rate.

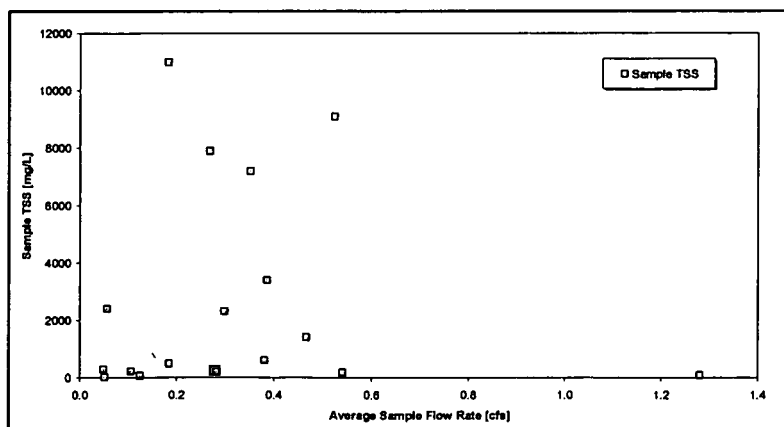
Figure 8-83. Variation of TSS with Flow Rate at GS04.



Location GS05

GS05 shows no statistically significant correlation between TSS and increasing flow rate, although the higher TSS values are associated with the higher flow rates.

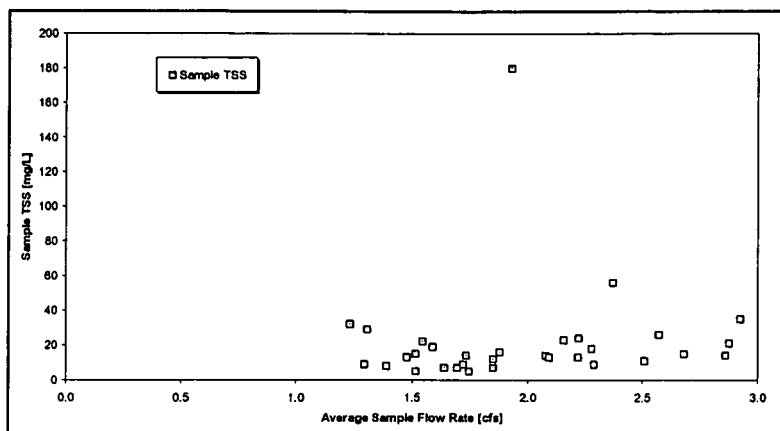
Figure 8-84. Variation of TSS with Flow Rate at GS05.



Location GS06

GS06 shows no statistically significant correlation between TSS and increasing flow rate.

Figure 8-85. Variation of TSS with Flow Rate at GS06.



Location GS08

GS08 does not show a strong relationship due to a single point with high TSS (Figure 8-86). This may have been caused by the sample intake temporarily sucking streambed sediments.

Figure 8-86. Variation of TSS with Flow Rate at GS08.

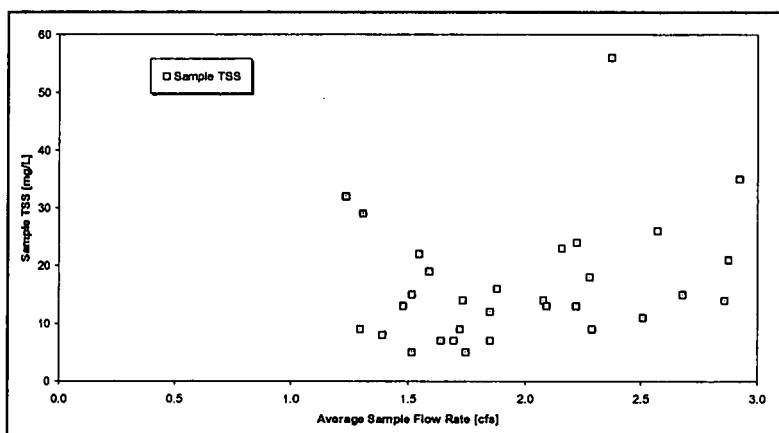
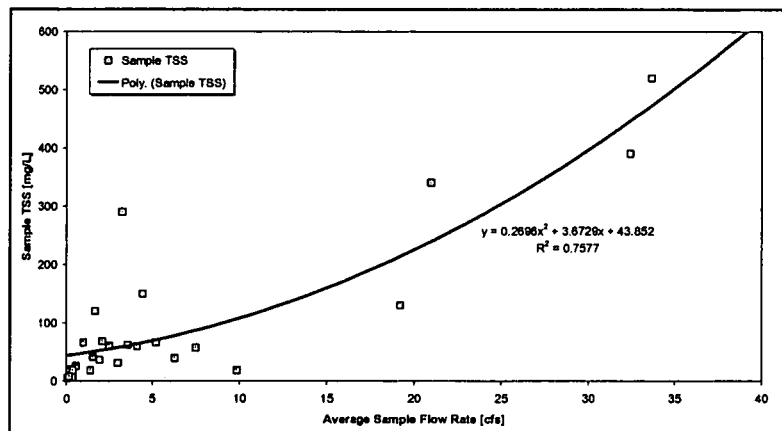


Figure 8-87 shows the GS08 data with the point noted above removed from the evaluation. With this data subset no statistically significant correlation is noted between TSS and flow rate.

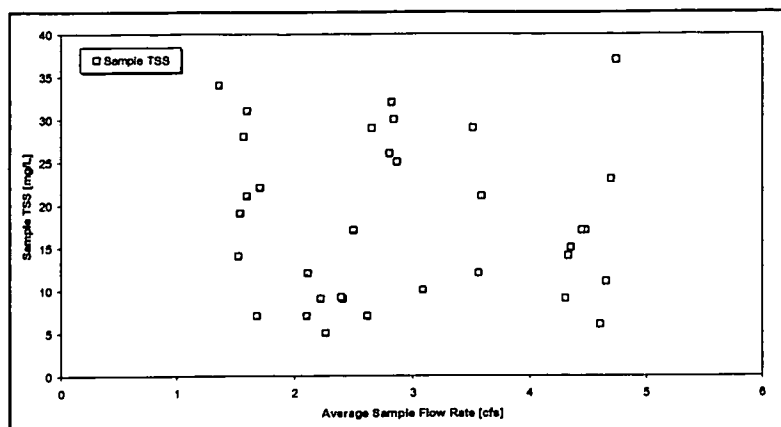
Figure 8-87. Variation of TSS with Flow Rate at GS08: Data Subset.



Location GS10

GS10 shows a good correlation between increasing TSS and increasing flow rate.

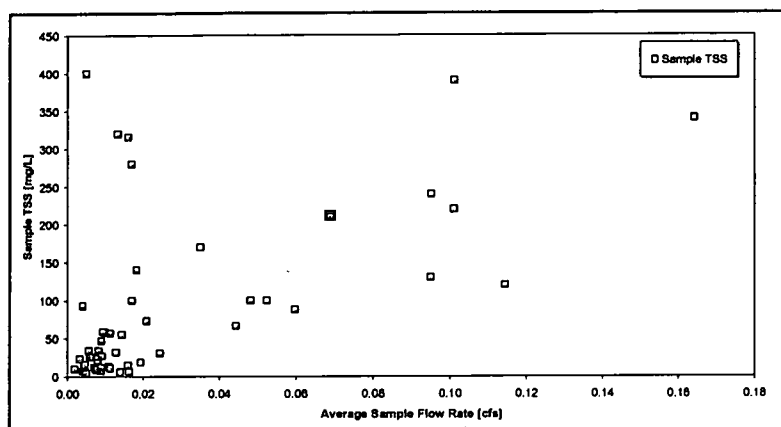
Figure 8-88. Variation of TSS with Flow Rate at GS10.



Location GS11

GS11 shows no statistically significant correlation between TSS and increasing flow rate.

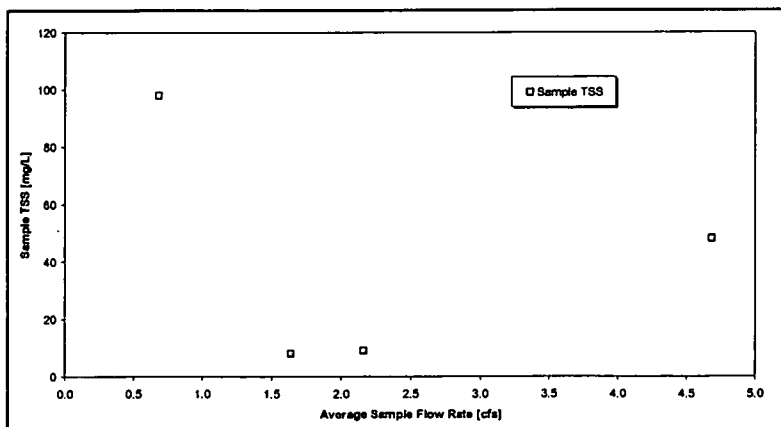
Figure 8-89. Variation of TSS with Flow Rate at GS11.



Location GS27

GS27 shows no statistically significant correlation between TSS and increasing flow rate. The high TSS values for low flow rates may be the result of intense low-volume precipitation events (possibly with hail) that pulverize local soils to yield high TSS with lower peak flow rates.

Figure 8-90. Variation of TSS with Flow Rate at GS27.



Location GS31

GS31 shows no statistically significant correlation between TSS and increasing flow rate for the few points available.

Figure 8-91. Variation of TSS with Flow Rate at GS31.

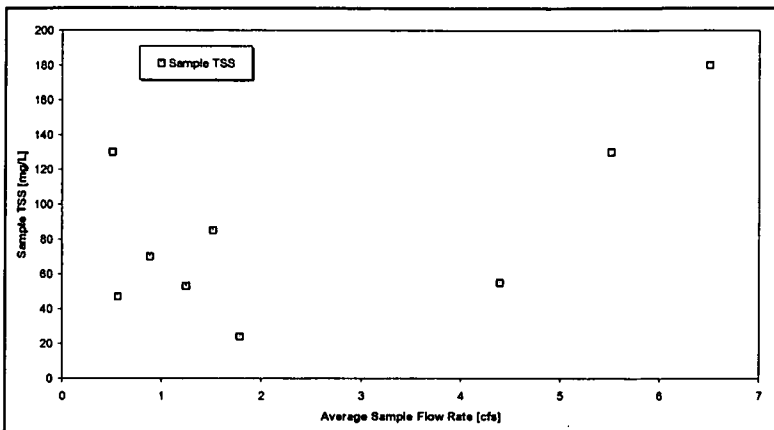


Figure 8-92. Variation of TSS with Flow Rate at GS38.

Location GS38

GS38 shows no statistically significant correlation between TSS and increasing flow rate.

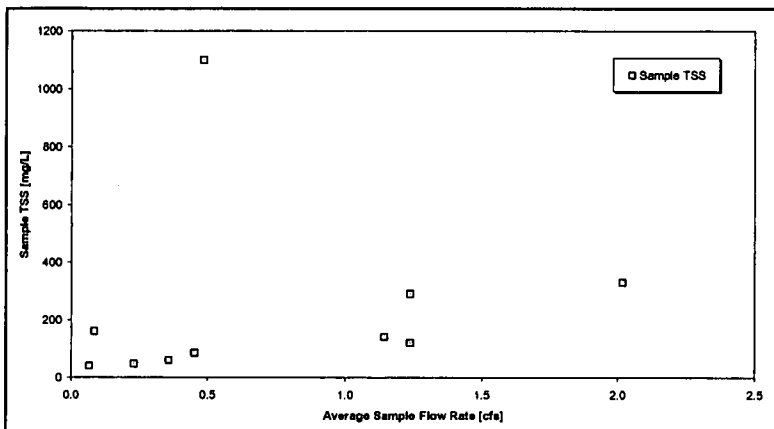


Figure 8-93. Variation of TSS with Flow Rate at GS39.

Location GS39

GS39 does not show a statistically significant correlation due to a single point with high TSS (Figure 8-93). This location is located near a high-traffic dirt road that accesses the Contractor Yard. During runoff events, especially snowmelts, traffic on this road results in runoff with visibly high TSS. Since this sample was collected in March 1998, the high TSS may have been a result of vehicle traffic.

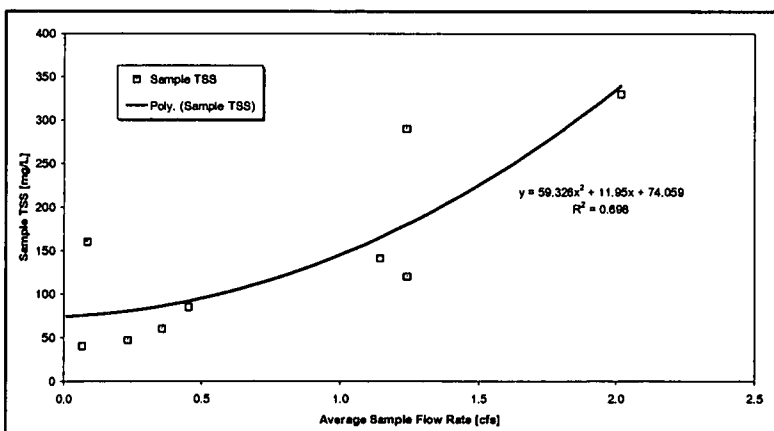
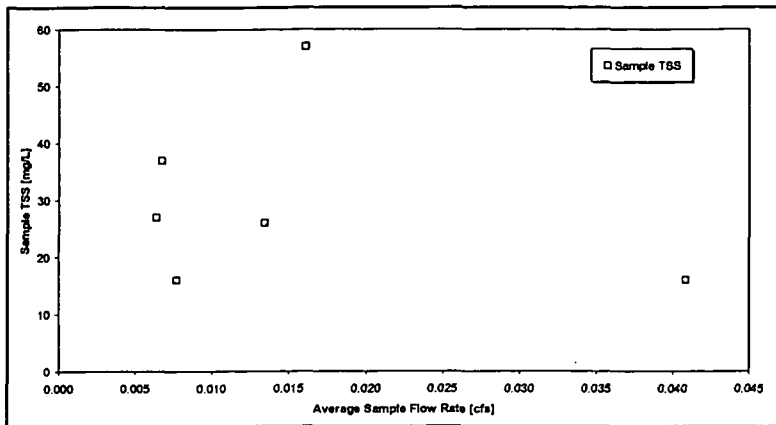


Figure 8-94. Variation of TSS with Flow Rate at GS39: Data Subset.

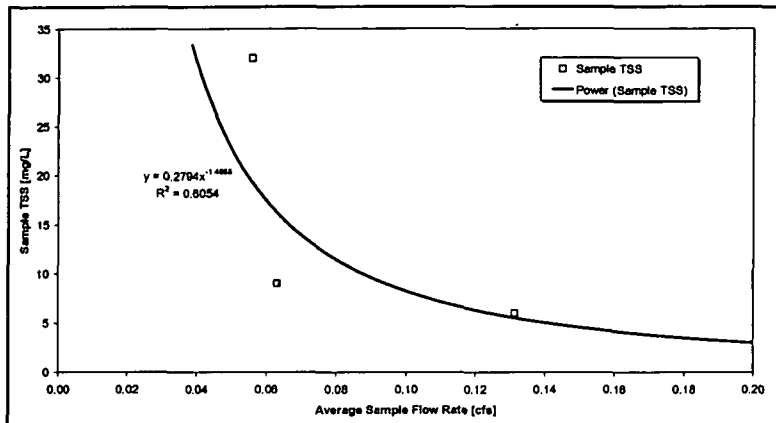
Figure 8-94 shows the GS39 data with the point noted above removed from the evaluation. The plot shows a fair relationship between increasing TSS and increasing flow rate for the few points available.



Location GS41

GS41 shows no statistically significant correlation between TSS and increasing flow rate.

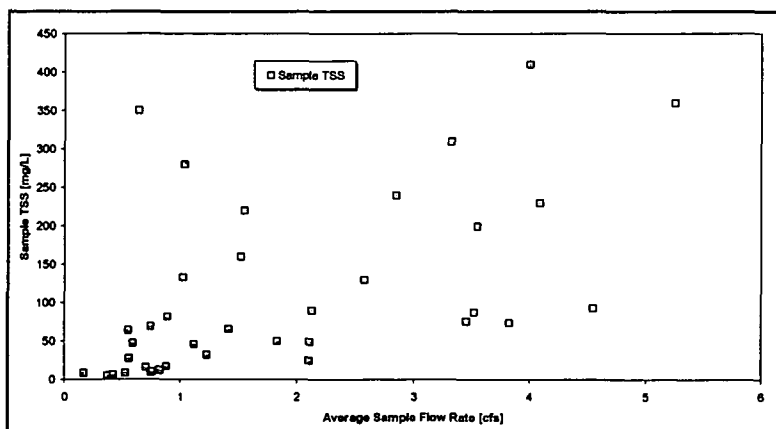
Figure 8-95. Variation of TSS with Flow Rate at GS41.



Location GS43

GS43 shows a fair correlation between *decreasing* TSS and increasing flow rate for the few points available. Since samples collected at GS43 include both runoff and pumped footing drain discharges, samples of predominantly footing drain water could have higher flow rates and (presumably) lower TSS.

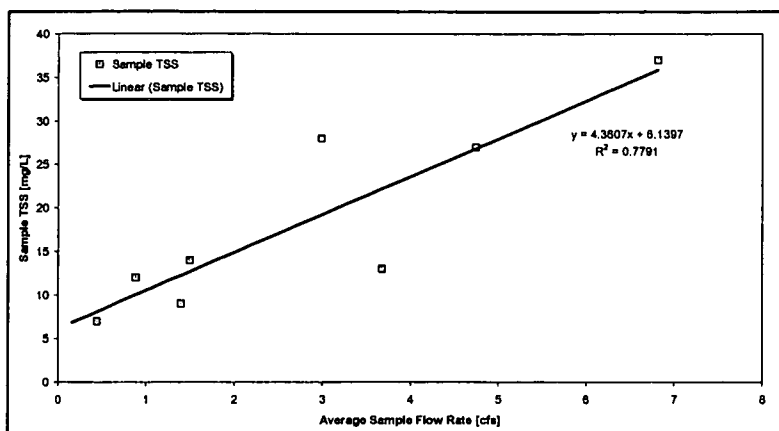
Figure 8-96. Variation of TSS with Flow Rate at GS43.



Location SW022

SW022 shows no statistically significant correlation between TSS and increasing flow rate.

Figure 8-97. Variation of TSS with Flow Rate at SW022.

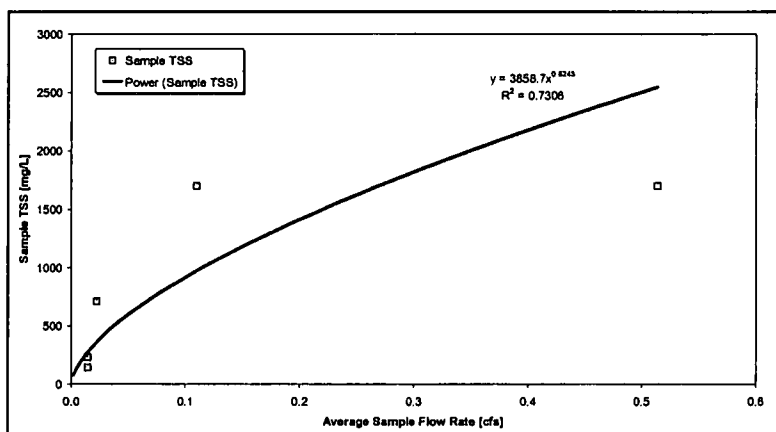


Location SW027

SW027 shows a good correlation between increasing TSS and increasing flow rate.

Figure 8-98. Variation of TSS with Flow Rate at SW027.

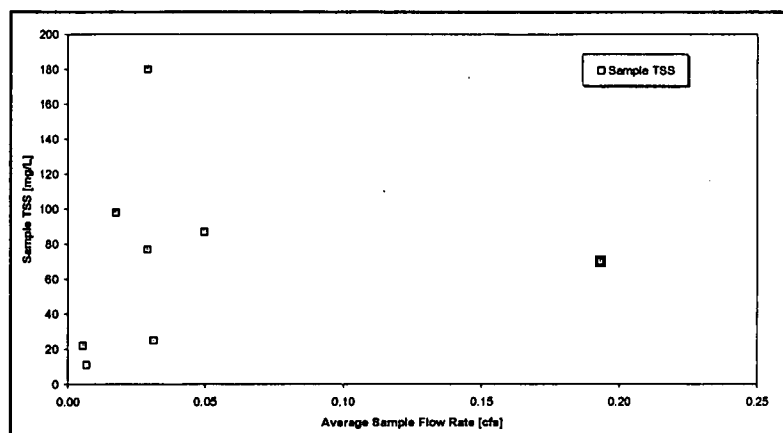
Location SW091



SW091 shows a good correlation between increasing TSS and increasing flow rate for the relatively few samples available.

Due to high channel erosion rates and frequent winter icing conditions, SW091 was moved 500' downstream on 5/4/98. Since the new location is below a small depression where flows are temporarily detained, water quality is expected to vary between the two locations. Therefore, data from the original location are presented in Figure 8-99 and data from the current location are presented in Figure 8-100.

Figure 8-99. Variation of TSS with Flow Rate at SW091: Original Location.



SW091 (current location) shows no statistically significant correlation between increasing TSS and increasing flow rate.

Figure 8-100. Variation of TSS with Flow Rate at SW091: Current Location.

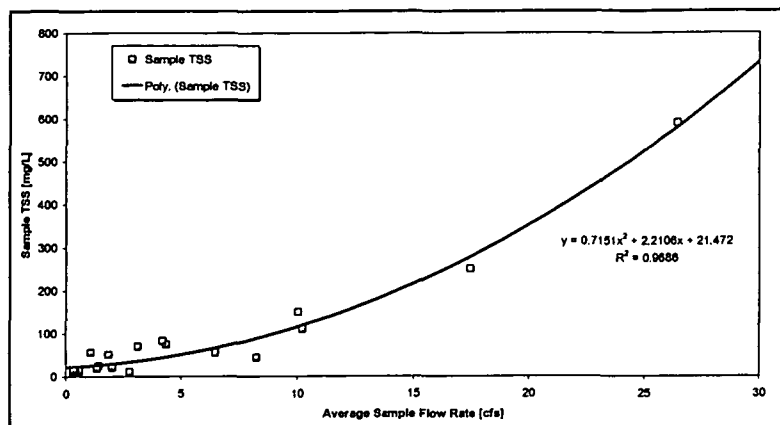


Figure 8-101. Variation of TSS with Flow Rate at SW093.

Location SW093

SW093 shows a strong correlation between increasing TSS and increasing flow rate.

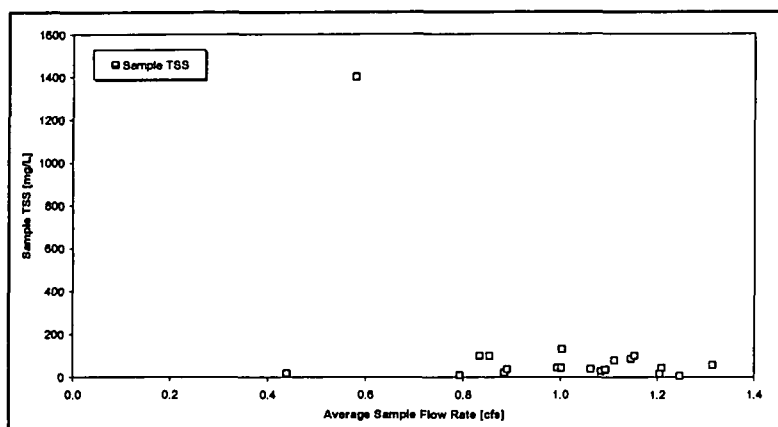


Figure 8-102. Variation of TSS with Flow Rate at SW134.

Location SW134

SW134 shows no statistically significant correlation between TSS and increasing flow rate. Since SW134 generally monitors pumped discharges from a series of active gravel pits, the origin of the pumped water could be expected to result in varying water quality.

8.3.6 Correlation of Turbidity with Flow Rate

This section evaluates the variation of mean daily turbidity with the corresponding average flow rate. Plots are presented for all locations where both flow and real-time turbidity data are collected. These locations are GS08, GS10, GS11, GS31, SW027, and SW093.

The mean daily turbidity is the arithmetic average of the 15-minute interval turbidity data during periods of greater than zero streamflow for any given date. The corresponding average flow rate is the arithmetic average of the 15-minute interval flow data during periods of greater than zero streamflow for the same date. Only days where complete record (no missing data) for both turbidity and flow rate are included.

Location GS08

GS08 shows no statistically significant correlation between turbidity and increasing flow rate.

Since GS08 is on the outfall of Pond B-5, the flow rates are valve controlled and not dependent on runoff conditions. In order to maintain a 1-foot per day drawdown rate in the pond (to prevent sloughing due to excessive soil dewatering rates), the lowest flow rates tend to occur at the lowest pond levels. At low pond levels, the residence time (for passive settling) of runoff inflows (from GS10) is shorter and less water is also available to dilute the associated turbidity. Consequently, low-flow and high-turbidity points could be for

discharge days at the end of a batch discharge period.

Additionally, at these lower pond levels, biologic growth rates may be enhanced resulting in higher turbidity measurements.

Finally, higher discharge rates can be maintained when runoff inflow rates (from GS10) are higher. Consequently, high-flow and high-turbidity points could be for discharge days when significant runoff (with higher expected turbidity; see Figure 8-104) is entering Pond B-5.

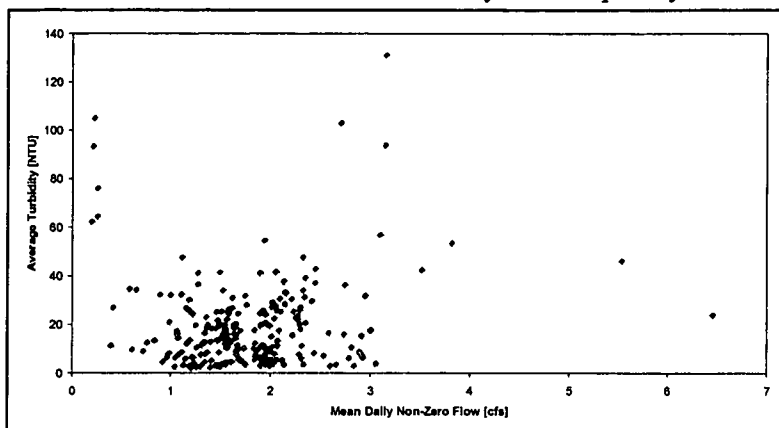
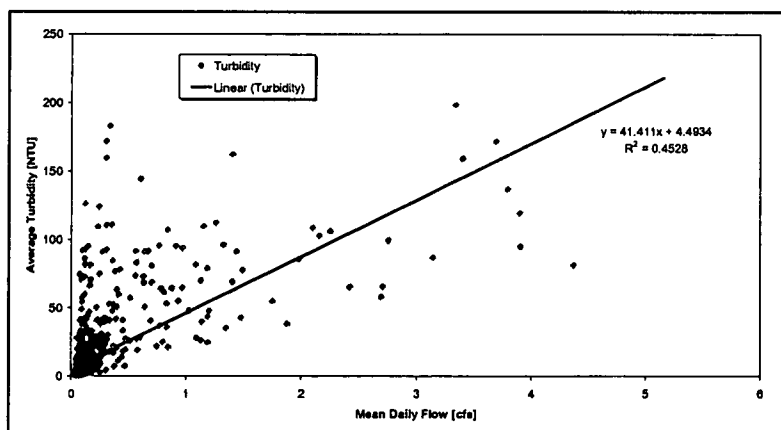


Figure 8-103. Variation of Turbidity with Flow Rate at GS08.



Location GS10

GS10 shows a weak correlation between increasing turbidity and increasing flow rate. This is expected since TSS (as indicated by turbidity) generally increases with increasing flow rate at GS10 (Figure 8-88).

Figure 8-104. Variation of Turbidity with Flow Rate at GS10.

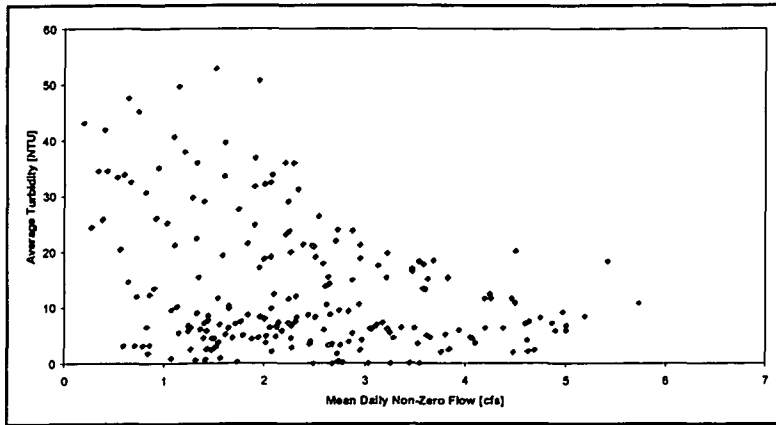


Figure 8-105. Variation of Turbidity with Flow Rate at GS11.

Location GS11

GS11 shows a general trend between decreasing turbidity and increasing flow rate. Since GS11 is on the outfall of Pond A-4, the flow rates are valve controlled and not dependent on runoff conditions. In order to maintain a 1-foot per day drawdown rate in the pond, the lowest flow rates tend to occur at the lowest pond levels. At these lower pond levels, biologic growth rates may be enhanced resulting in higher turbidity measurements.

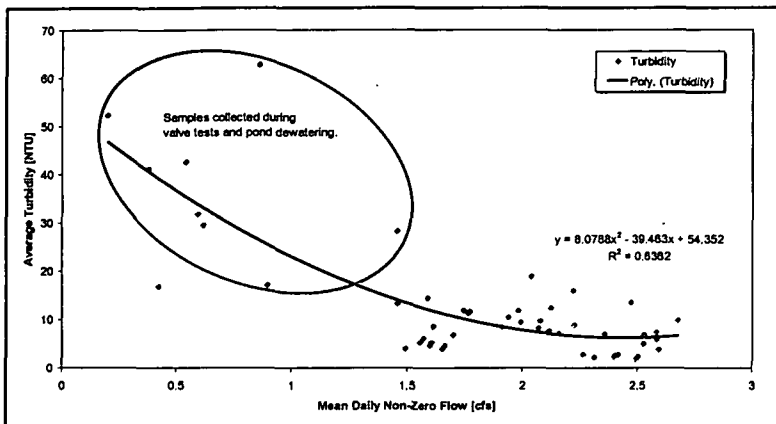


Figure 8-106. Variation of Turbidity with Flow Rate at GS31.

Location GS31

GS31 shows a good correlation between decreasing turbidity and increasing flow rate. Since GS31 is on the outfall of Pond C-2, the flow rates are controlled by pumping rates and not dependent on runoff conditions. In order to maintain a 1-foot per day drawdown rate in the pond, the lowest flow rates tend to occur at the lowest pond levels. At these lower pond levels, biologic growth rates may be enhanced resulting in higher turbidity measurements.

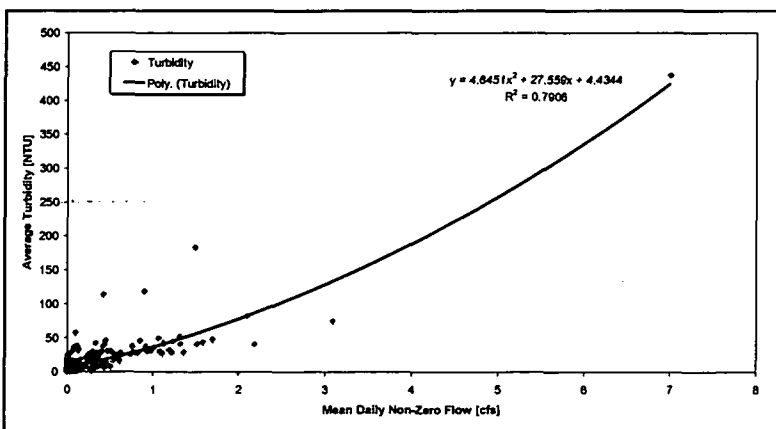
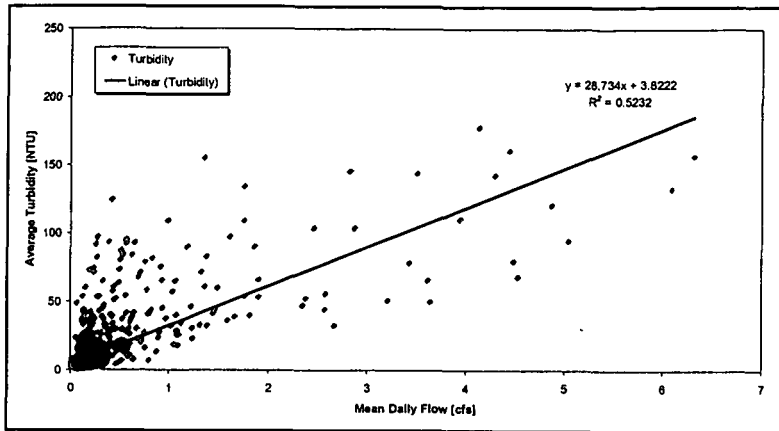


Figure 8-107. Variation of Turbidity with Flow Rate at SW027.

Location SW027

SW027 shows a good correlation between increasing turbidity and increasing flow rate, although the fit is strongly influenced by a single data point. This is expected since TSS (as indicated by turbidity) generally increases with increasing flow rate at SW027 (Figure 8-98).



Location SW093

SW093 shows a fair correlation between increasing turbidity and increasing flow rate. This is expected since TSS (as indicated by turbidity) generally increases with increasing flow rate at SW093 (Figure 8-101).

Figure 8-108. Variation of Turbidity with Flow Rate at SW093.

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9. NPDES DISCHARGE MONITORING

The National Pollutant Discharge Elimination System (NPDES) permit program controls the release of pollutants into the waters of the United States and requires routine monitoring of point source discharges and reporting of results. The Site's first NPDES permit, CO-0001333, was issued by EPA in 1974. The permit in force during the reporting period covered in this document, was originally reissued by EPA in 1984, expired in 1989, was administratively extended, and again renewed in late October 2000.

9.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

For completeness, NPDES data for the period 10/1/00 – 10/26/00 have been included to present a full summary of the discharge data for the reporting period covered in this report. During this period, data were collected from outfall STP A, 001 A, and 002 A (discharge from the Sewage Treatment Plant, discharge from Pond B-3, and discharge from Pond A-3, respectively). There were no discharges from any of the terminal ponds in that period. The outfalls are identified in Table 9-1. Table 9-3 details the specific analytes, collection frequencies, and parameter limitations as applicable, for each monitoring location. Table 9-5 provides summary data for each of the permitted locations.

As of October 2000, EPA had issued a renewal NPDES permit to three co-permittees at Rocky Flats, the Department of Energy, Kaiser-Hill, and Rocky Flats Closure Sites Services (RFCSS). The permit covered point discharges from the Wastewater Treatment Plant and Building 374. The latter had been included in the permit application a number of years previously, but due to the changing mission of the Site, was no longer needed in the NPDES permit. The co-permittees had asked that the outfall be removed from the renewal permit, but EPA declined. Upon issuance, the co-permittees appealed the permit provisions applicable to the 374 outfall, as allowed by regulation. EPA acknowledged the appeal and suspended the requirements for 374 until the issues were resolved. The rest of the permit became effective on October 27, 2000. The appeal was resolved in early 2001, and the modified permit requirements became effective on May 1, 2001. The modified permit provisions applicable for Bldg. 374 accepted the existing monitoring program for the treatment systems' product water. Summary data for the 374 outfall only are compiled annually and provided to EPA and the State in March of each year. Those data are not included in the tables below.

With the implementation of the renewed permit, only two locations were defined as permitted outfalls, STP1 (discharge from Sewage Treatment Plant, Bldg. 995) and 014 (discharge from Bldg. 374 Evaporator). Note that the outfall code for the effluent from the Sewage Treatment Plant changed from STP A to STP 1 with the issuance of the renewed permit. The sample location remained the same. Samples are also collected at the influent to the Sewage Treatment Plant, but the parameters are for reporting purposes only and have no limitation. The outfalls are identified in Table 9-2. All monitoring for NPDES compliance is prescriptively required by EPA in the permit. Table 9-4 details the specific analytes, collection frequencies, and parameter limitations as applicable, for each monitoring location. Table 9-6 provides summary data for each of the permitted locations. Finally, Table 9-7 details measurements that were reported to EPA in the monthly Discharge Monitoring Report as being greater than the permitted limitations for specific location and analyte.

The permit also identifies four stormwater outfalls for monitoring as follows:

- **008** The storm water discharge from the area outlined on Sheet 2 (Basin SW022) of the maps in the Form 2F application submitted October 1, 1992, located at the point where Central Avenue Ditch crosses the outer industrial area security fence.
- **GS10** The storm water discharge from the area outlined on sheet 3 (Basin SW023) of the maps in the Form 2F application submitted October 1, 1992, located on South Walnut Creek upstream of Pond B-1.

- **010** The storm water discharge from the area outlined on Sheet 4 (Basin SW027) of the maps in the Form 2F application submitted October 1, 1992, located at the downstream end of the south interceptor ditch.
- **011** The storm water discharge from the area outlined on Sheet 5 (Basin SW093) of the maps in the Form 2F application submitted October 1, 1992, located on North Walnut Creek at a point upstream of Pond A-1. This area receives any storm water discharge from Outfall 012.

Monitoring at these locations is performed as detailed under the New Source Detection (NSD; Section 11) and Point of Evaluation (POE; Section 12) monitoring objectives. Monitoring for outfall 008 is accomplished at NSD location SW022 at the east end of Central Ave. Ditch. Monitoring at outfalls GS10, 010, and 011 is accomplished at NSD/POE locations GS10 (S. Walnut Cr. above B-Series Ponds), SW027 (east end of SID), and SW093 (N. Walnut Cr. above A-Series Ponds), respectively. The monitoring conducted in accordance with the IMP targets the same points and constituents of concern identified in the current NPDES permit. Data generated by this monitoring is adequate for determining the efficacy of the Storm Water Pollution Prevention Plan developed under the permit.

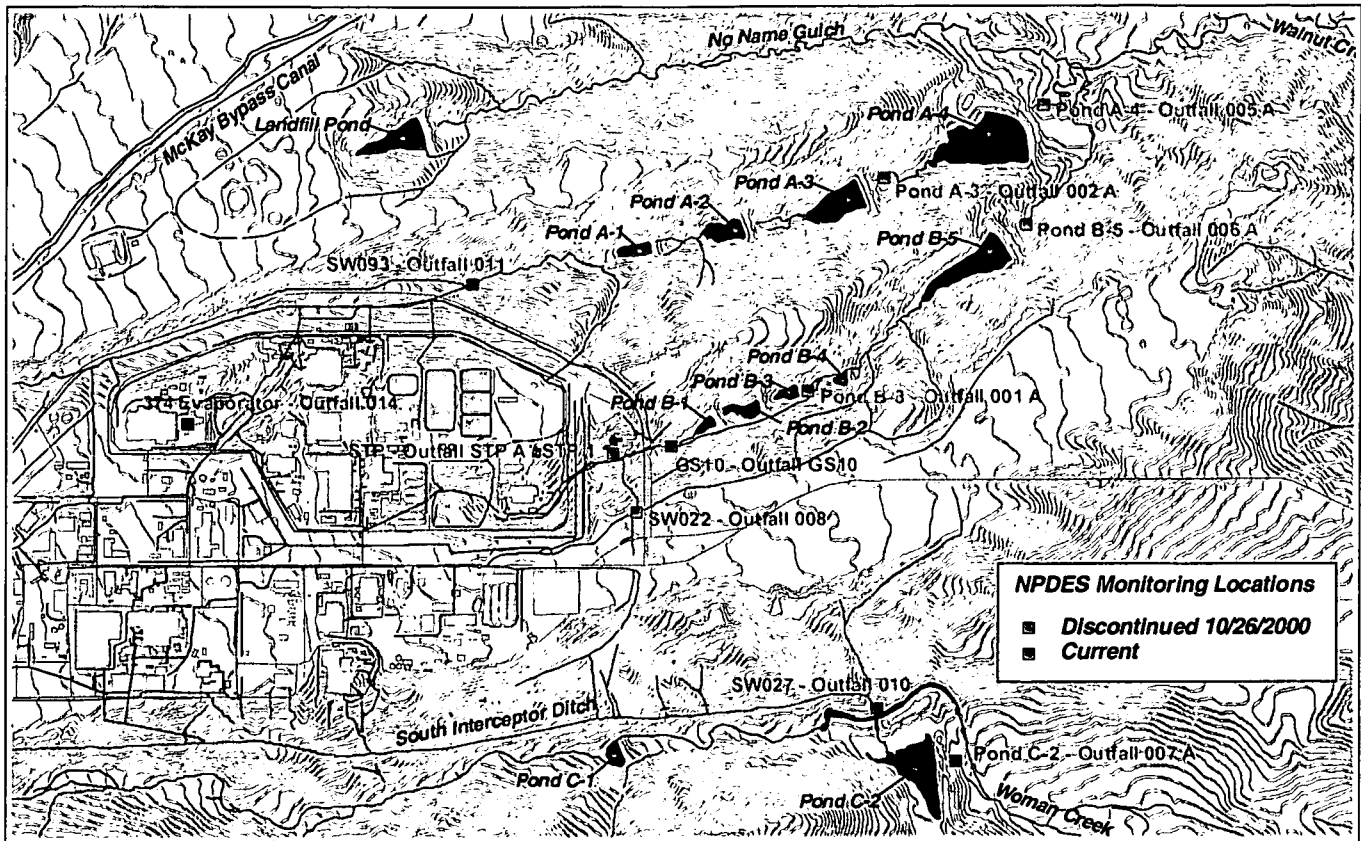
9.2 WY01 MONITORING SCOPE

Table 9-1. NPDES Monitoring Locations, 10/1/00 – 10/26/00.

Outfall Code	Location Description
Outfall STP A	Discharge from the Sewage Treatment Plant, Bldg. 995
Outfall 001 A	Discharge from Pond B-3
Outfall 002 A	Discharge from Pond A-3
Outfall 005 A	Discharge from Pond A-4
Outfall 006 A	Discharge from Pond B-5
Outfall 007 A	Discharge from Pond C-2

Table 9-2. NPDES Monitoring Locations after 10/26/00.

Outfall Code	Location Description
Outfall STP 1	Discharge from the Sewage Treatment Plant, Bldg. 995
Outfall 014	Discharge from Bldg. 374 Evaporator



Note: Locations are for RFETS NPDES permit number CO0001333.

Figure 9-1. Water Year 2001 NPDES Monitoring Locations.

Table 9-3. NPDES Sample Collection Requirements 10/1/00 – 10/26/00.

Outfall Code	Analyte	Frequency	Type	Limitation(s)
STP A	pH	daily	grab	6.0 – 9.0 S.U.
	Total Suspended Solids	2 X week	composite	30 mg/l, 30 day average; 45 mg/l, 7 day average
	Oil and Grease, visual	daily	visual observation	no sheen
	Oil and Grease, gravimetric method	collected if sheen observed	grab	10 mg/l, daily maximum
	Total Phosphorous (as P)	2 X week	composite	8 mg/l, 30 day average; 12 mg/l, daily maximum
	Flow	continuous recorder	contiguous recorder	report only, no limitation
	Total Residual Chlorine	daily	grab	report only, no limitation
	Fecal Coliform	2 X week	grab	200 colonies/100 ml, 30 day geometric mean; 400 colonies/100 ml, 7 day geometric mean
	Carbonaceous Biochemical Oxygen Demand, 5 day test	2 X week	composite	10 mg/l, 30 day average; 25 mg/l, daily maximum
	Whole Effluent Toxicity, acute test	quarterly	composite	report only, no limitation

Outfall Code	Analyte	Frequency	Type	Limitation(s)
001 A	Biochemical Oxygen Demand, 5 day test	weekly	grab	report only, no limitation
	Total Suspended Solids	weekly	grab	report only, no limitation
	Total Nitrogen, Nitrate (as N)	weekly	grab	10 mg/l, 30 day average; 20 mg/l, maximum 7 day average
	Total Residual Chlorine	daily	grab	0.5 mg/l, daily maximum
	Carbonaceous Biochemical Oxygen Demand, 5 day test	weekly	grab	report only, no limitation
002 A	pH	Daily during discharge	grab	6.0 – 9.0 S.U.
	Total Nitrogen, Nitrate (as N)	Daily during discharge	grab	10 mg/l, 30 day average; 20 mg/l, daily maximum
	Flow	Daily during discharge	Instantaneous	report only, no limitation

Table 9-4. NPDES Sample Collection Requirements after 10/26/00.

Outfall Code	Analyte	Frequency	Type	Limitation(s)
STP 1	pH	daily	grab	6.5 – 9.0 S.U.
	Total Suspended Solids	2 X week	composite	15 mg/l, 30 day average; 25 mg/l, daily maximum
	Oil and Grease, visual	daily	visual observation	no sheen
	Oil and Grease, gravimetric method	collected if sheen observed	grab	10 mg/l, daily maximum
	Total Phosphorous (as P)	2 X week	composite	8 mg/l, 30 day average; 12 mg/l, daily maximum
	Flow	continuous recorder	contiguous recorder	0.5 MG, 30 day average
	Fecal Coliform	2 X week	grab	200 colonies/100 ml, 30 day geometric mean; 400 colonies/100 ml, 7 day geometric mean
	Carbonaceous Biochemical Oxygen Demand, 5 day test	2 X week	composite	8 mg/l, 30 day average; 20 mg/l, daily maximum
	Dissolved Hexavalent Chromium	Quarterly, only if total chromium results are >11 ug/l	grab	11 ug/l, 30 day average; 16 ug/l, daily maximum
	Total Recoverable Chromium	2 X month	composite	50 ug/l, daily maximum
	Potentially Dissolved Silver	1 X week	composite	0.6 ug/l, 30 day average; 3.8 ug/l daily maximum
	Alkalinity, total (as CaCO ₃)	2 X week	composite	No limitation, report only
	Total Nitrate/nitrite (as N)	2 X week	composite	No limitation, report only
	Nitrite (as N)	2 X week	composite	4.5 mg/l, daily maximum
	Ammonia (as N)	2 X week	composite	No limitation, report only
	Gross alpha	2 X month	composite	11 pCi/L, 30 day average
	Gross beta	2 X month	composite	19 pCi/L, 30 day average
	Carbon Tetrachloride	1 X month	grab	5 ug/l, 30 day average
	1, 2 dichloroethane	1 X month	grab	5 ug/l, 30 day average

Outfall Code	Analyte	Frequency	Type	Limitation(s)
	Benzene	1 X month	grab	5 ug/l, 30 day average
	1,1 dichloroethylene	1 X month	grab	7 ug/l, 30 day average
	1,1,1 trichloroethane	1 X month	grab	200 ug/l, 30 day average
	(trans) 1,2 dichloroethene	1 X month	grab	70 ug/l, 30 day average
	Trichloroethylene	1 x month	grab	5 ug/l, 30 day average
	Tetrachloroethylene	1 X month	grab	5 ug/l, 30 day average
	Whole Effluent Toxicity, acute test	quarterly	composite	No toxicity
	Whole Effluent Toxicity, chronic test	2 X year, first three years of permit	composite	No limitation, report only for first three years of permit

9.3 DATA EVALUATION

Table 9-5. NPDES Monitoring Analytical Data Summary for 10/1/00 – 10/26/00.

Outfall Code	Analyte	Analyses Performed During Reporting Period	Minimum	Maximum	Average
STP A	pH	26	6.9 S.U.	7.9 S.U.	N/A
	Total Suspended Solids	12	< 5 mg/l	< 5 mg/l	< 5 mg/l
	Oil and Grease, visual	26	N/A	N/A	N/A
	Oil and Grease, gravimetric method	0	N/A	N/A	N/A
	Total Phosphorous (as P)	12	< 1 mg/l	10 mg/l	3 mg/l
	Total Residual Chlorine	26	< 0.01 mg/l	0.02 mg/l	0.01 mg/l
	Fecal Coliform	8	< 2 colonies/100 ml	110 colonies/100 ml	N/A
	Carbonaceous Biochemical Oxygen Demand, 5 day test	12	< 2 mg/l	8 mg/l	3
	Whole Effluent Toxicity, acute test	N/A	N/A	N/A	N/A
	Flow	26	90,000 gallons	217,000 gallons	135,000 gallons
001 A	Biochemical Oxygen Demand, 5 day test	8	< 2 mg/l	11 mg/l	6 mg/l
	Total Suspended Solids	8	< 5 mg/l	11 mg/l	3 mg/l
	Total Nitrogen, Nitrate (as N)	8	3 mg/l	8 mg/l	5 mg/l
	Total Residual Chlorine	26	< 0.01 mg/l	0.05 mg/l	0.02 mg/l
	Carbonaceous Biochemical Oxygen Demand, 5 day test	8	< 2 mg/l	6 mg/l	3 mg/l
002 A	pH	4	8.2 S.U.	8. S.U.	N/A
	Total Nitrogen, Nitrate (as N)	4	2 mg/l	3 mg/l	3 mg/l
	Flow	4	486,000 gallons	1,156,000 gallons	864,000 gallons

Table 9-6. NPDES Monitoring Analytical Data Summary after 10/26/00.

Outfall Code	Analyte	Analyses Performed During Reporting Period	Minimum	Maximum	Average
STP 1	pH	339	6.7 S.U.	8.8 S.U.	N/A
	Total Suspended Solids	143	< 4 mg/l	10 mg/l	5 mg/l
	Oil and Grease, visual	339	N/A	N/A	N/A
	Oil and Grease, gravimetric method	0	N/A	N/A	N/A
	Total Phosphorous (as P)	143	< 1 mg/l	8 mg/l	2 mg/l
	Flow	339	69,000 gallons	473,000 gallons	178,000 gallons
	Fecal Coliform	95	< 2 colonies/100 ml	1600 colonies/100 ml	N/A
	Carbonaceous Biochemical Oxygen Demand, 5 day test	144	< 2 mg/l	8 mg/l	2 mg/l
	Dissolved Hexavalent Chromium	0	N/A	N/A	N/A
	Total Recoverable Chromium	22	< 0.2 ug/l	1 ug/l	0.4 ug/l
	Potentially Dissolved Silver	48	< 0.04 ug/l	0.8 ug/l	0.2 ug/l
	Alkalinity, total (as CaCO ₃)	143	88 mg/l	260 mg/l	132 mg/l
	Total Nitrate/nitrite (as N)	141	0.3 mg/l	10 mg/l	3 mg/l
	Nitrite (as N)	140	0.04 mg/l	4.7 mg/l	0.7 mg/l
	Ammonia (as N)	147	0.1 mg/l	19 mg/l	2 mg/l
	Gross alpha	22	- 0.5 pCi/L	3.3 pCi/L	1.4 pCi/L
	Gross beta	22	3.5 pCi/L	13.2 pCi/L	5.5 pCi/L
	Carbon Tetrachloride	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	1, 2 dichloroethane	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	Benzene	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	1,1 dichloroethylene	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	1,1,1 trichloroethane	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	(trans) 1,2 dichloroethene	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	Trichloroethylene	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	Tetrachlorethylene	11	< 1 ug/l	< 1 ug/l	< 1 ug/l
	Whole Effluent Toxicity, acute test	4	N/A	No toxicity	N/A
	Whole Effluent Toxicity, chronic test	2	N/A	No toxicity	N/A

There were no NPDES measurement greater than permit limitations for the period 10/1/00 – 10/26/00.

Table 9-7. Summary of NPDES Measurements Greater than Permit Limitations after 10/26/00.

Outfall Code	Date(s)	Parameter/Limitation	Measurements Greater than Permit Limitation (or as noted)
STP 1	Week of 11/13/00 – 11/17/00	Fecal coliform/ 7 day geometric mean, 400 colonies/100 ml	620 colonies/100 ml
STP 1	11/27/00	Nitrite, daily maximum, 4.5 mg/l	4.7 mg/l
STP 1	January – March 2001	Whole Effluent Toxicity acute test/quarterly, fathead minnows	Toxicity measured; re-sample showed no toxicity for minnows
STP 1	May 2001	Carbonaceous Biochemical Oxygen Demand Percent Removal/monthly calculated value must be greater than or equal to 85%	Calculated removal was 84%

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10.PERFORMANCE MONITORING

This section addresses monitoring the performance of specific actions¹⁸ on Site for the release of contaminants to the environment. Project-specific Performance monitoring (PM) may be specified in the project plan through the review and approval process for those projects which pose a concern for a contaminant release, especially for a contaminant that may not be adequately monitored by other monitoring objectives downstream. Each PM location will target contaminants of the greatest concern for the specific action being monitored. For example, PM for specific analytes may be needed for the evaluation of the following:

- Specific D&D Actions: The review and approval process for a D&D action may identify the need for Performance monitoring specific to that action.
- Specific Remedial Actions: There are monitoring requirements associated with specific Operable Unit (OU) activities. For example, the existing consolidated treatment plant for OU1 and OU2 has a surface water discharge. Performance monitoring specific to this discharge is specified in the work plans.
- Transition Actions: For example, DOE, RFFO has proposed changes to the operation protocols of the ITS. Specific Performance monitoring may be needed in light of this change if other monitoring in the IMP fails to provide adequate assurance of protecting the environment and public health.
- Best Management Practices (BMPs) for the Control of Plutonium Transport in Surface Water Runoff: For example, when a BMP (barrier, trap, filter, or other watershed improvement) is installed to control a potential source of Pu-contaminated runoff, the Site would like to determine the effectiveness of the BMP so that future resources may be allocated where they are most effective.

Monitoring of activities within the IA is achieved, in general, through New Source Detection (NSD) and Point of Evaluation (POE) monitoring (see Sections 10.3.7 and 12 for details) at the IA boundary. Project-specific PM stations monitor specific high-risk Site activities, such as D&D of a particular building or building cluster. These mobile, temporary stations will be placed upstream from the routine monitoring stations (POE and NSD), closer to specific projects/activities to monitor a specific subdrainage for releases of contaminants associated with the activity in the subdrainage.

10.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

Data quality objectives must be specified in the project plan. Analyte suites (data types for collection) are generally determined by the contaminants of concern associated with a specific activity. Generally, automated samples are continuous flow-paced composites. However, protocols may be modified depending on the specific conditions for a monitoring location or drainage basin. Regardless, the sampling protocols are designed to accurately characterize existing flows, and confidently monitor for changes during the project activities.

Generally, monitoring is initiated prior to the start of project activities such that 10 - 15 samples over varying flow rates can be collected (preferably 18 months prior to project initiation¹⁹). Results from these samples are used to establish a baseline for the subdrainage. Monitoring continues during the activity, attempting to collect one sample per month. After project completion, monitoring continues long enough (approximately 3 months) to determine any impacts (both positive and negative) to surface-water quality.

PM can occur anywhere within the Site surface-water drainage area (especially within the IA), downstream from a BMP, remediation, or high-risk activity.

¹⁸ This is project-specific, versus the global monitoring (NSD and POE) of the IA discussed in Sections 10.3.7 and 12.

¹⁹ Due to the dynamic nature of Site Cleanup, initiation of Performance monitoring 18 months prior to an activity is rarely achieved. However, additional samples are often collected at an increased rate to establish baseline prior to initiation of project activities.

10.2 WY01 MONITORING SCOPE

Table 10-1. Performance Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry	Project [Project Contact]
GS27	Small ditch NW of B884 tributary to Central Avenue Ditch	2" Cutthroat Flume	Yes	D&D of B889; Watershed Improvements evaluation; [Contact: NA]
GS32	Corrugated metal pipe (1.5') north of Solar Ponds in PA draining B779 area	18" cmp ^a	Yes	D&D of B779 and B776/777; [Contacts: J. Stevens, x5797, B779; R. Lesser, x2298, B776/777]
GS39	Corrugated metal pipe (1.0') north of 904 Pad draining 903/904 Pads and Contractor Yard areas	1' H Flume	Yes	Remediation activities for 903 Pad; [Contact: T. Spence, x4322]
GS40	Drainage Ditch in PA E of Tenth St. (750 Pad) S of Building 997	1' Parshall Flume	Yes	B707 Area D&D activities; [Contact: R. Lesser, x2298]
GS42	Gulch tributary to SID 150' above POE SW027	3" Parshall Flume	Yes	Remediation activities for 903 Pad; [Contact: T. Spence, x4322]
GS43	Drainage ditch northeast of T886A	0.5' H-Flume	Yes	D&D of B886; [Contact: M. Shafer, x4375]
GS44	Culvert between T771F and T771L	1' H Flume	Yes	B771/774 D&D; [Contact: C. Gilbreath, x7355, B771/774]
GS49	Ditch NW of B566	6" Parshall Flume	Yes	D&D of B776/777; [Contact: R. Lesser, x2298, B776/777]
GS50	Ditch N of B990	6" Parshall Flume	Yes	Solar Ponds activities; [Contact: T. Lindsay, x5705, Solar Ponds]
GS51	Ditch along abandoned road S of 903 Pad just upstream of SID	0.75' H-Flume	Yes	Remediation activities for 903 Pad; [Contact: T. Spence, x4322]
GS52	Gully SSE of 903 Pad just upstream of SID	0.6' HS-Flume	No	Remediation activities for 903 Pad; [Contact: T. Spence, x4322]
GS53	Gully SE of 903 Pad just upstream of SID	0.6' HS-Flume	No	Remediation activities for 903 Pad; [Contact: T. Spence, x4322]
GS54	Gully ESE of 903 Pad just upstream of SID	0.6' HS-Flume	No	Remediation activities for 903 Pad; [Contact: T. Spence, x4322]
SW055	Culvert under inner fence SE of 903 Pad	0.75' H-Flume	Yes	Remediation activities for 903 Pad; [Contact: T. Spence, x4322]
SW091	Downstream end of gully at confluence with N. Walnut Cr. draining NE Solar Ponds Area	6" Cutthroat Flume	Yes	Solar Ponds activities; [Contact: T. Lindsay, x5705, Solar Ponds]; also serves as NSD location
SW119	Drainage ditch north of Solar Ponds along PA perimeter road	9" Parshall Flume	Yes	Solar Ponds activities; [Contact: T. Lindsay, x5705, Solar Ponds]
SW120	Drainage ditch north of Solar Ponds along PA perimeter road	4" Cutthroat Flume	Yes	B771/774 D&D and Solar Ponds activities; [Contact: T. Lindsay, x5705, Solar Ponds; C. Gilbreath, x7355, B771/774]

Notes: ^a Due to the current configuration of in place stormwater culverts, flow measurement at this location is not possible without significant construction modifications. All other locations collect 5- and 15-minute flow data.

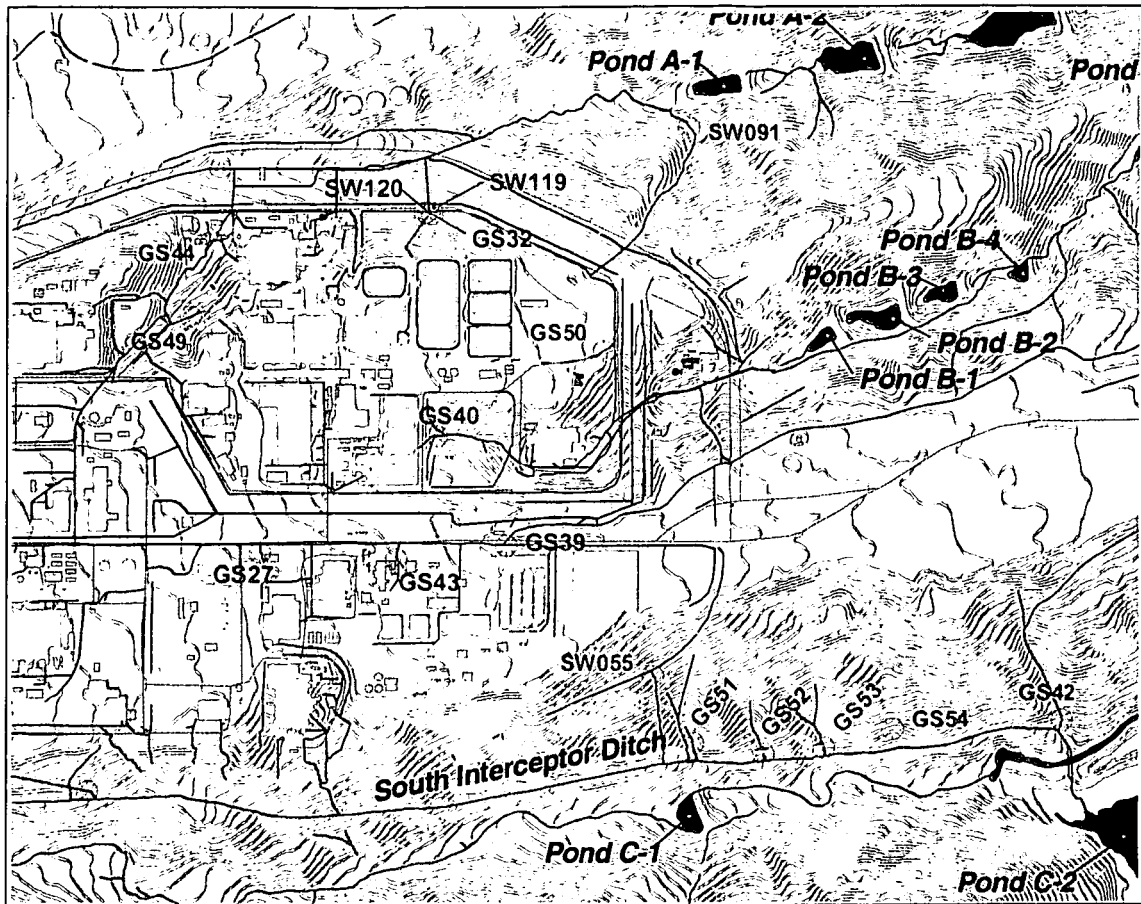


Figure 10-1. Water Year 2001 Performance Monitoring Locations.

Table 10-2. Performance Sample Collection Protocols.

ID Code	Frequency: WY01 Actual (Target)	Type ^b
GS27	8 (1 per month)	Storm-event rising-limb flow-paced composites ^a
GS32	7 (1 per month)	Storm-event rising-limb time-paced composites ^a
GS39	12 (12 per year ^c)	Continuous flow-paced composites
GS40	14 (12 per year ^c)	Continuous flow-paced composites
GS42	0 (12 per year ^c)	Continuous flow-paced composites
GS43	6 (12 per year ^c)	Continuous flow-paced composites
GS44	14 (12 per year ^c)	Continuous flow-paced composites
GS49	6 (12 per year ^c)	Continuous flow-paced composites
GS50	4 (12 per year ^c)	Continuous flow-paced composites
GS51	0 (12 per year ^c)	Continuous flow-paced composites
GS52	0 (12 per year ^c)	Continuous flow-paced composites
GS53	0 (12 per year ^c)	Continuous flow-paced composites
GS54	0 (12 per year ^c)	Continuous flow-paced composites
SW055	1 (12 per year ^c)	Continuous flow-paced composites
SW091	2 (1 per month)	Storm-event rising-limb flow-paced composites ^a
SW119	5 (12 per year ^c)	Continuous flow-paced composites
SW120	9 (12 per year ^c)	Continuous flow-paced composites

Notes:

^a Storm-event sampling at locations which are often dry and normally only receive direct runoff is opportunistic. Some locations may see flow only during wet months. Every attempt is made to achieve the target sample frequency; however, this is not always possible.

^b Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

^c Annual total samples is 12 per year. Frequency of collection is based on expected flow volumes such that each sample collects water representing similar stream discharge volumes; for example, more samples are collected in wet spring months than dry winter months.

Table 10-3. Performance Analytical Targets (Analyses per Year).

ID Code	TSS*: WY01 Actual (Target)	Pu, U, Am: WY01 Actual (Target)	Tritium: WY01 Actual (Target)	CLP Metals: WY01 Actual (Target)
GS27	8 (12)	8 (12)	NA	NA
GS32	7 (12)	7 (12)	NA	7 (12)
GS39	4 (12)	12 (12)	NA	NA
GS40	1 (12)	14 (12)	14 (12)	14 (12)
GS42	0 (12)	0 (12)	NA	NA
GS43	1 (12)	6 (12)	NA	6 (12)
GS44	1 (12)	14 (12)	14 (12)	14 (12)
GS49	0 (12)	6 (12)	6 (12)	6 (12)
GS50	0 (12)	4 (12)	NA	4 (12)
GS51	0 (12)	0 (12)	NA	NA
GS52	0 (12)	0 (12)	NA	NA
GS53	0 (12)	0 (12)	NA	NA
GS54	0 (12)	0 (12)	NA	NA
SW055	0 (12)	1 (12)	NA	NA
SW091	2 (12)	2 (12)	NA	NA
SW119	1 (12)	5 (12)	NA	5 (12)
SW120	1 (12)	9 (12)	9 (12)	9 (12)

Notes: * Ideally, TSS would be analyzed for all samples collected at the above locations. However, continuous flow-paced sampling protocols often result in composite samples which are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS can not be analyzed for all continuous flow-paced composite samples, but will be analyzed when possible.

10.3 DATA EVALUATION

Data evaluation will be specified for individual projects. A project-specific indicator might be a single monitoring result, a 30-day average for a specific analyte, or an indicator for the analyte of concern. An example decision rule is shown below. Generally, evaluation is performed as data become available, especially if an initial qualitative screening based on process knowledge indicates that an analytical result is higher than normal for a particular location.

IF	The project-specific indicator is greater than the 95% upper tolerance limit (UTL) of baseline,
THEN	The Site will evaluate the specific activity to improve performance. The appropriate project contacts will be notified
IF	The project-specific indicator is less than the 95% lower tolerance level (LTL),
THEN	The Site will conclude that the project has reduced environmental releases of the specific contaminant.

Generally, UTLs are calculated on a semi-monthly basis. While this is the only routine data evaluation performed for PM locations, project-specific evaluations may also be detailed in the applicable project plans.

The following sections present the performance monitoring data evaluations on a project-specific basis. Each section includes a table of summary statistics for the location-specific analytes of interest, 95% UTL plots, box-whisker plots, and plots of the temporal variation of suspended solids Pu and Am activity. For this report, data from the three year period of WY99-01 were used in the evaluations.²⁰

²⁰ A 3-year moving window is chosen where possible. For many Performance locations, monitoring only lasts a year or two. Under those circumstances, all data is used, and particular qualitative/quantitative attention is given to the effects of hydrology and seasonality on the results.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

For the summary tables, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When metals and TSS results are returned from the laboratory as 'undetected', 1/2 of the detection limit is used for calculation purposes.

The method for calculating UTLs is given in Appendix B.1: Data Evaluation Methods. UTL lines are shown on the plots only for the determined distribution. When the data may satisfy either distribution, both UTL lines are plotted; when no distribution is determined, no UTL line is plotted. A common legend is used in all UTL plots.

Box-whisker plots were prepared using S-Plus statistical evaluation software. For these plots, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When metals and TSS results are returned from the laboratory as 'undetected', 1/2 of the detection limit is used for calculation purposes. Pu/Am ratios are calculated only for samples where both the Pu and Am results were greater than 0.015 pCi/L to avoid ratios for samples with activities near the MDA. A key describing the components of the box-whisker plots is given in Appendix B.1: Data Evaluation Methods.

The temporal variation of suspended solids activity plots are included as an indication of changes in the contamination characteristics of a particular drainage basin. All available data for the period of operation for each location is included in the analysis. A suspended solids activity that decreases over time may indicate that contaminant sources have been removed from the drainage, clean solids have become more available to runoff, or contaminant sources have been naturally attenuated over time. Similarly, a suspended solids activity that increases over time may indicate that new contaminant sources have become available for transport in the drainage. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations below were analyzed for TSS. Only values greater than the detection limit (generally 5 mg/L for TSS, 0.015 pCi/L for Pu and Am) are included.

10.3.1 Building 889 D&D

Monitoring location GS27 was originally installed under the IA IM/IRA in support of the D&D of Building 889. GS27 was installed on 3/9/95. Figure 10-2 shows the drainage area for GS27.

Monitoring data collected at GS27 have shown the highest Pu and Am activities for automated monitoring locations (Table 10-4). The high activities prompted the Site to initiate an investigation, with the intent being the mitigation of contaminated soils and/or the removal of 'hot spots'. However, surface-soil and sediment sampling, in addition to FIDLER surveys, in the GS27 subdrainage have shown only moderate activities in the single pCi/g range. The fact that suspended solids activities are frequently 1 to 2 orders of magnitude higher than the surface-soil/sediment activities (Figure 10-8) suggests that preferential suspension in runoff of more contaminated particles may be occurring at this location.

In an attempt to mitigate the movement of contaminated soils, some sediment was removed from the drainage ditch immediately upstream of GS27, and exposed soils were treated with a soil stabilizer called Topseal® in September 1996. Although lower activities were measured during WY97, higher activities were again measured in WY98. Data in recent years has shown lower activities (Figure 10-3 and Figure 10-4). It is not clear if the Topseal, the completion of the B889 D&D, or natural variability are the cause of these temporarily lower activities. However, Figure 10-8 shows a general reduction in suspended solids activity over time.

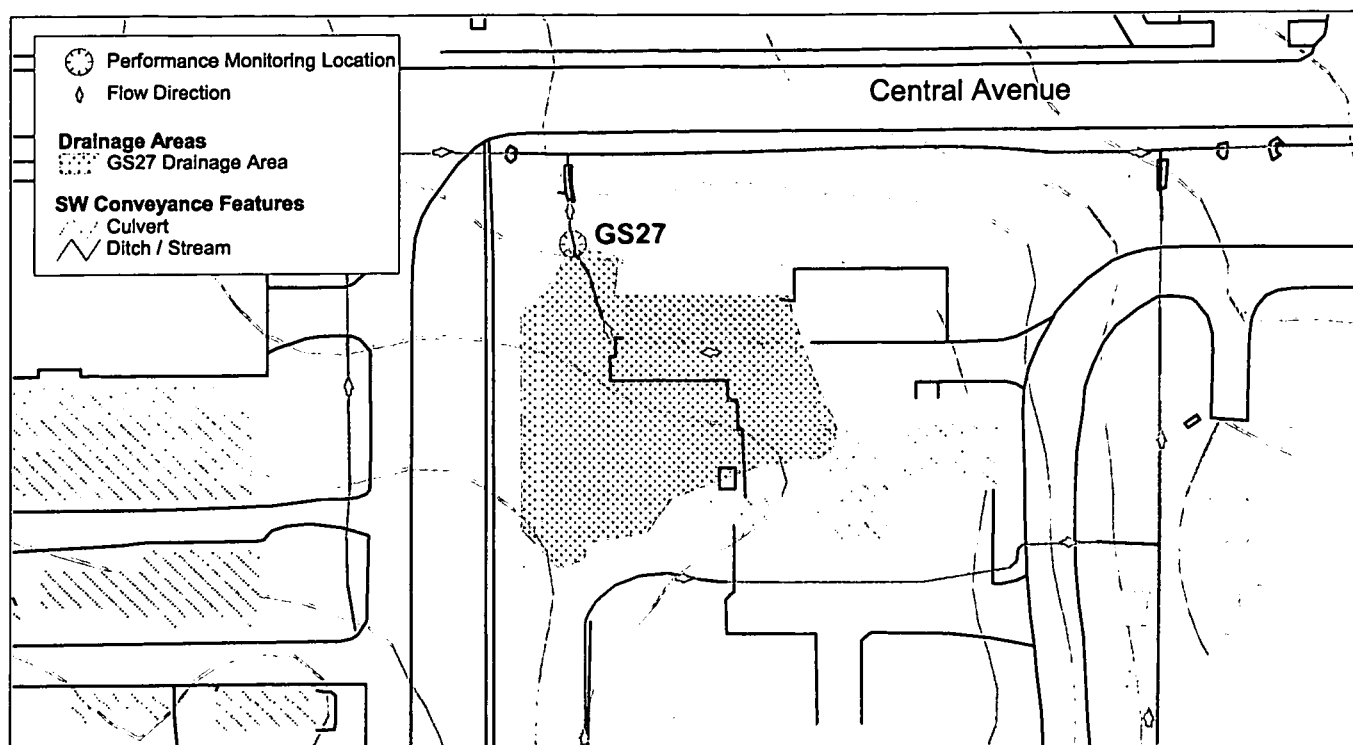


Figure 10-2. Performance Monitoring Drainage Areas for B889 D&D.

Figure 10-3 and Figure 10-4 show the UTL plots for Pu and Am, respectively. During WY99-01, a few Pu and Am results exceeded the calculated UTL. However, these values did not persist and were associated with higher TSS measurements. Similarly, the suspended solids activities for these samples were not particularly unusual. Figure 10-5 shows that two total uranium results were greater than the UTL.

Figure 10-5 shows that two of total uranium activities were greater than the UTL. However, these values did not persist. Figure 10-7 further shows that the median U-233,234/U-238 ratio is approximately one, as expected.

Table 10-4. Summary Statistics for Radionuclide Results from GS27 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	35	32	129	390	NA
Pu-239,240	35	0.731	3.085	26.8	23.5 ^a
Am-241	34	0.232	0.787	7.28	2.48 ^a
U-233,234	35	0.080	0.189	0.558	0.883 ^a
U-235	35	0.005	0.022	0.116	
U-238	35	0.084	0.217	0.573	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

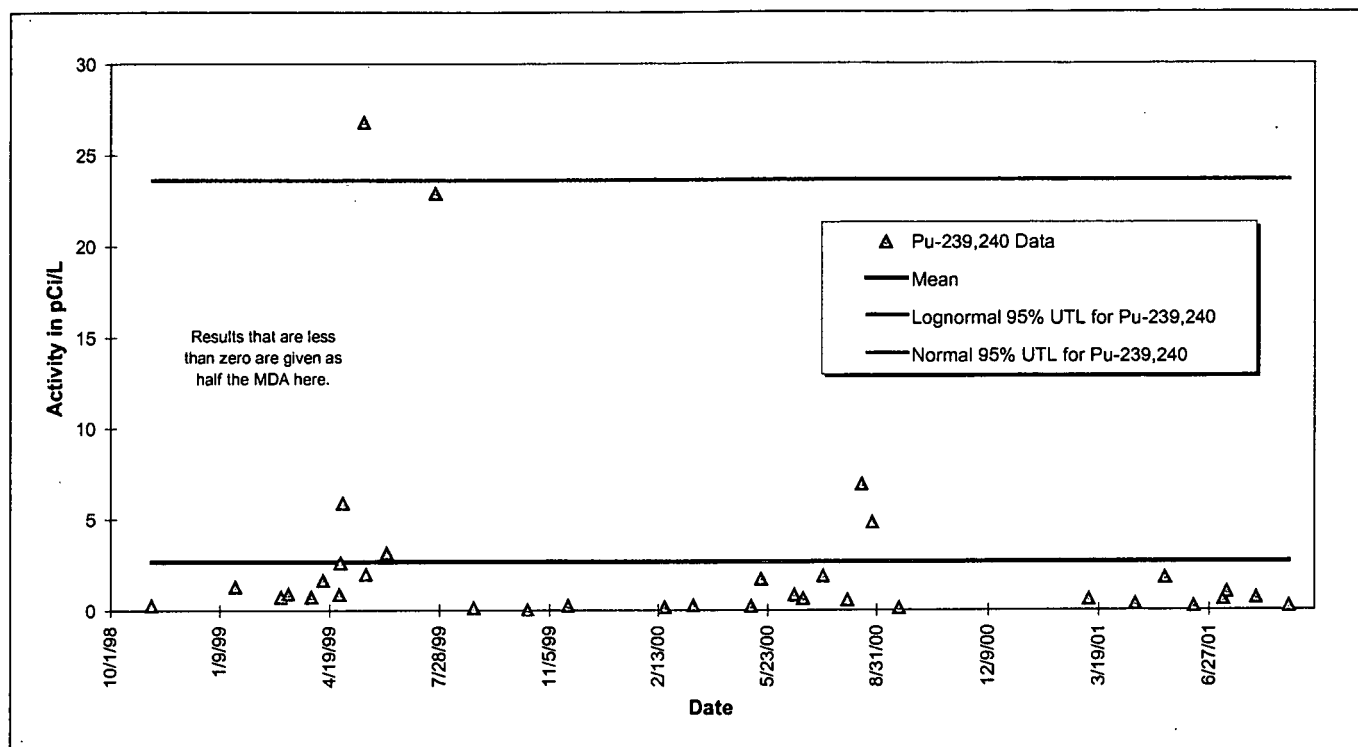


Figure 10-3. 95% UTL for Pu-239,240 at GS27: WY99-01.

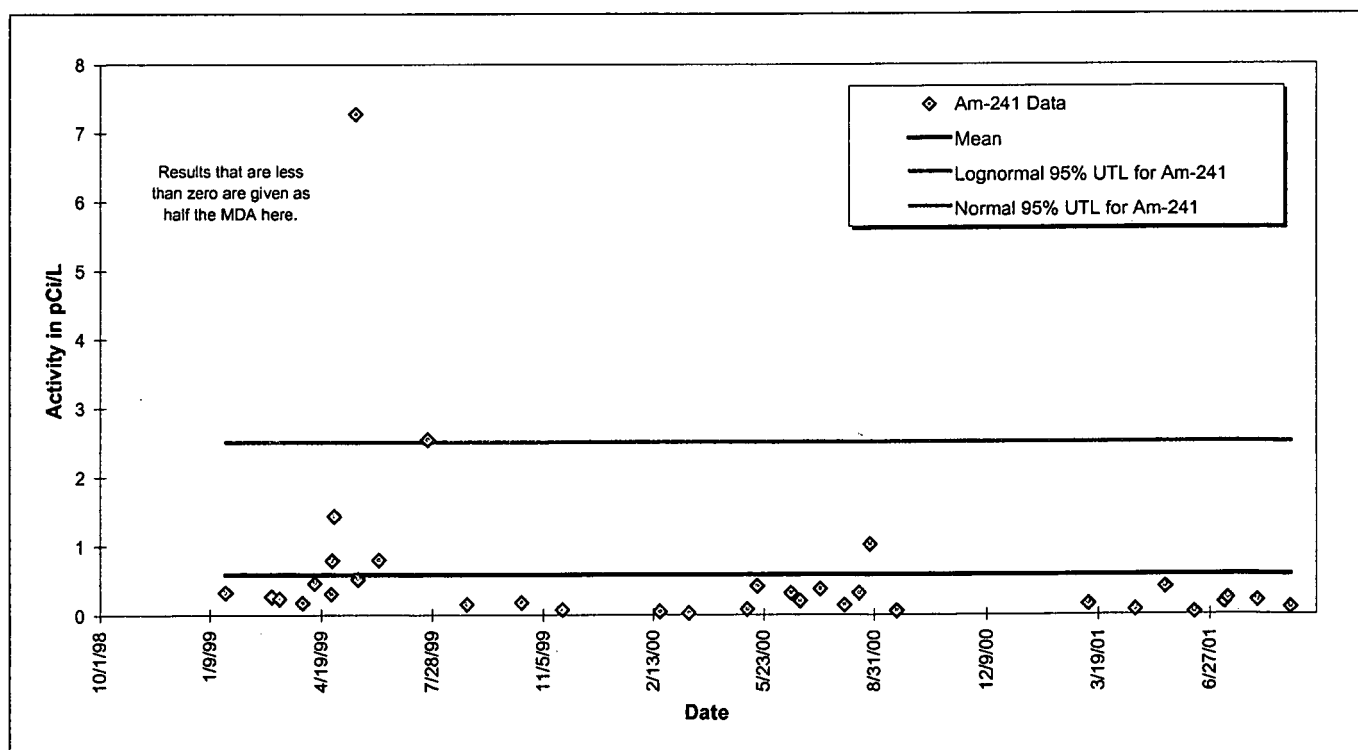


Figure 10-4. 95% UTL Plot for Am-241 at GS27: WY99-01.

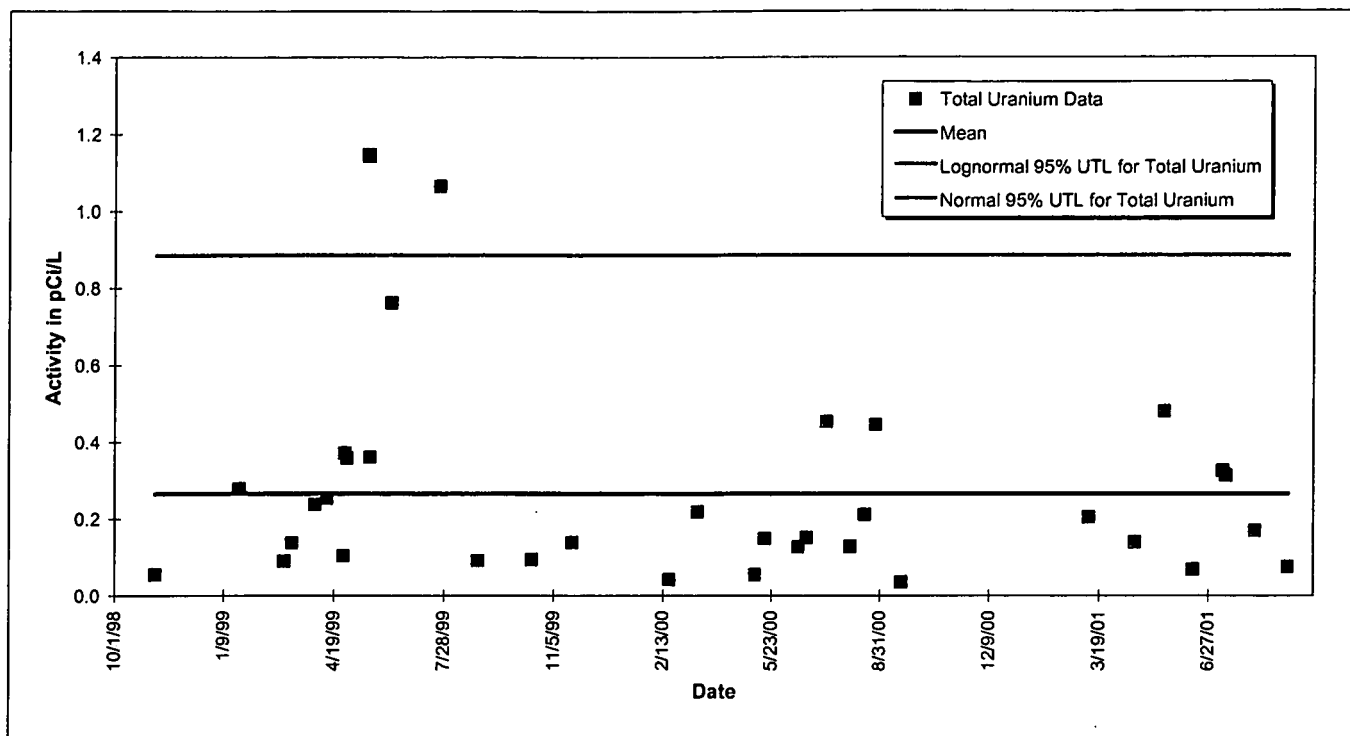


Figure 10-5. 95% UTL Plot for Total Uranium at GS27: WY99-01.

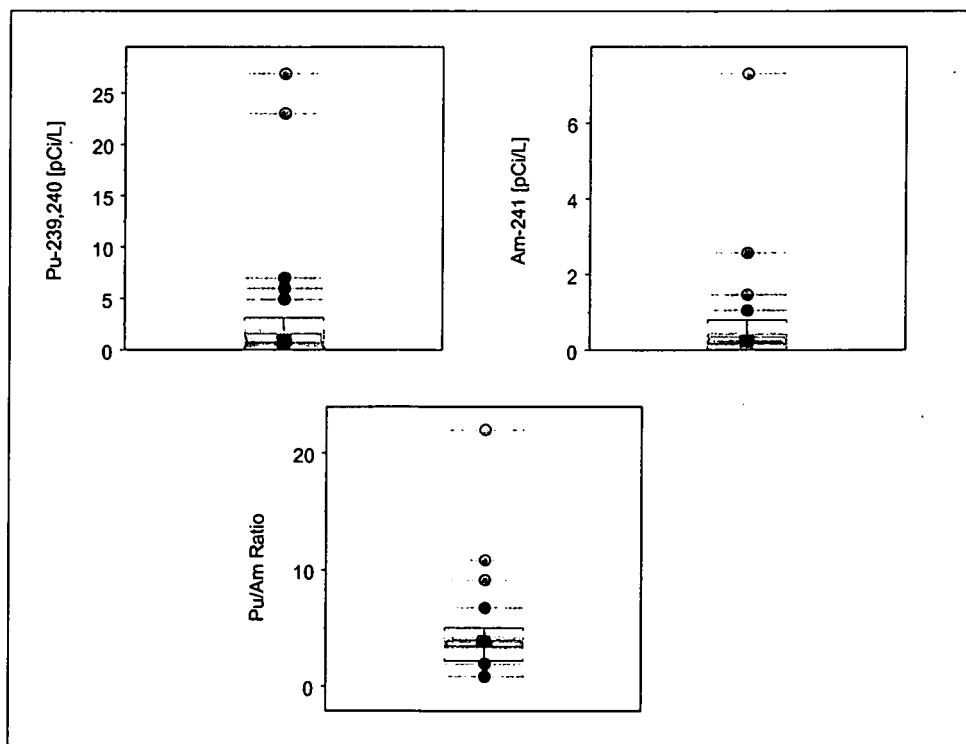


Figure 10-6. Pu and Am Box Plots for GS27: WY99-01.

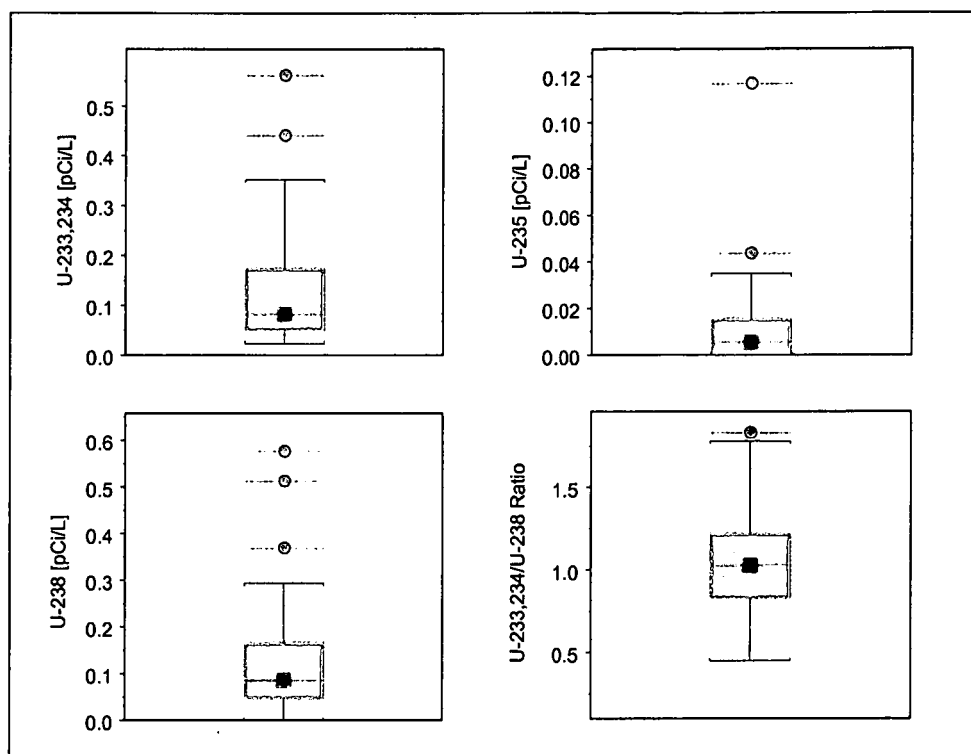


Figure 10-7. Uranium Box Plots for GS27: WY99-01.

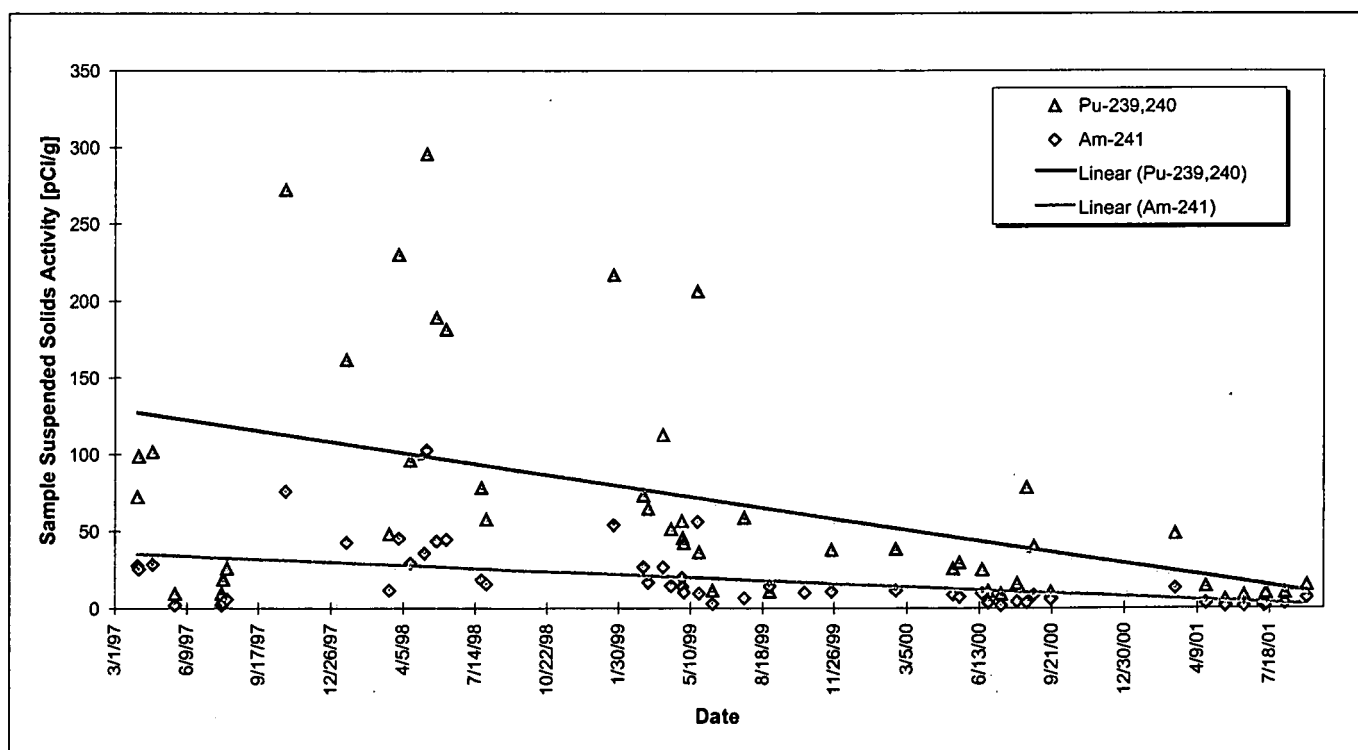


Figure 10-8. Temporal Variation of Suspended Solids Activity at GS27: WY97-01.

10.3.2 903 Pad and Lip Area Accelerated Actions

Monitoring location GS39 was originally installed on 1/15/98 in support of the source evaluation efforts related to GS10. GS39 also supports actions associated with the 903 Pad and Lip Area. Several other locations were installed or upgraded to support 903 Pad actions in WY01. These new/upgraded locations are GS42, GS51, GS52, GS53, GS54, and SW055.

Figure 10-9 shows the drainage areas for the 903 Pad monitoring locations. Other structures within this drainage include B906 and the 904 Pad tents.

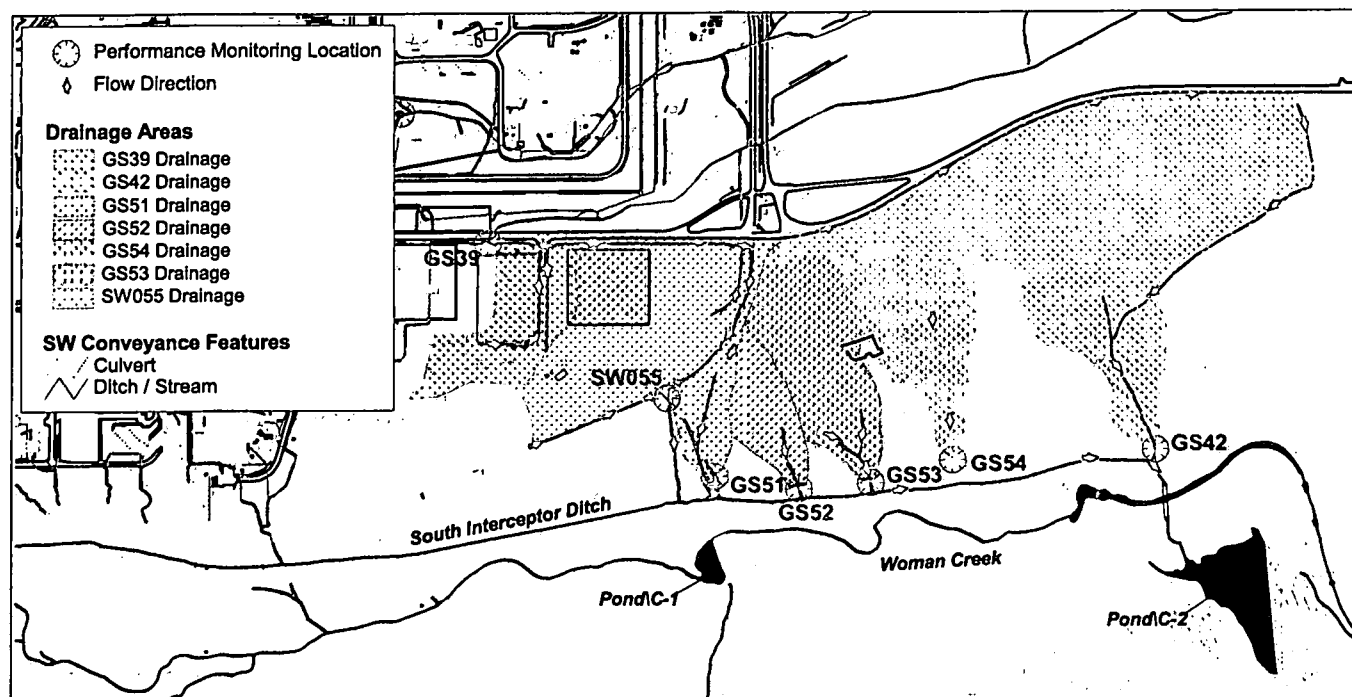


Figure 10-9. Performance Monitoring Drainage Areas for 903 Pad Accelerated Actions.

Monitoring data collected at GS39 show moderate median Pu and Am activities (Table 10-5). Figure 10-10 and Figure 10-11 show the UTL plots for Pu and Am, respectively. During WY99-00, no Pu results exceeded the calculated UTL. For Am, the distribution could not be determined. However, the Am box plot (Figure 10-12) indicates no 'suspect' values.

Total uranium was added to the GS39 analyte suite in the end of WY01, as such, only one total uranium result was available.

Figure 10-13 shows that there may have been some reduction in the Pu activity of the suspended solids. However, Am shows no trend.

Table 10-5. Summary Statistics for Radionuclide Results from GS39 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	9	120	264	330	NA
Pu-239,240	30	0.067	0.136	0.640	0.379 ^a
Am-241	30	0.019	0.045	0.083	^c
U-233,234	1	0.114	NA	NA	NA
U-235	1	0.000	NA	NA	
U-238	1	0.128	NA	NA	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L. Uranium UTL given for total uranium.

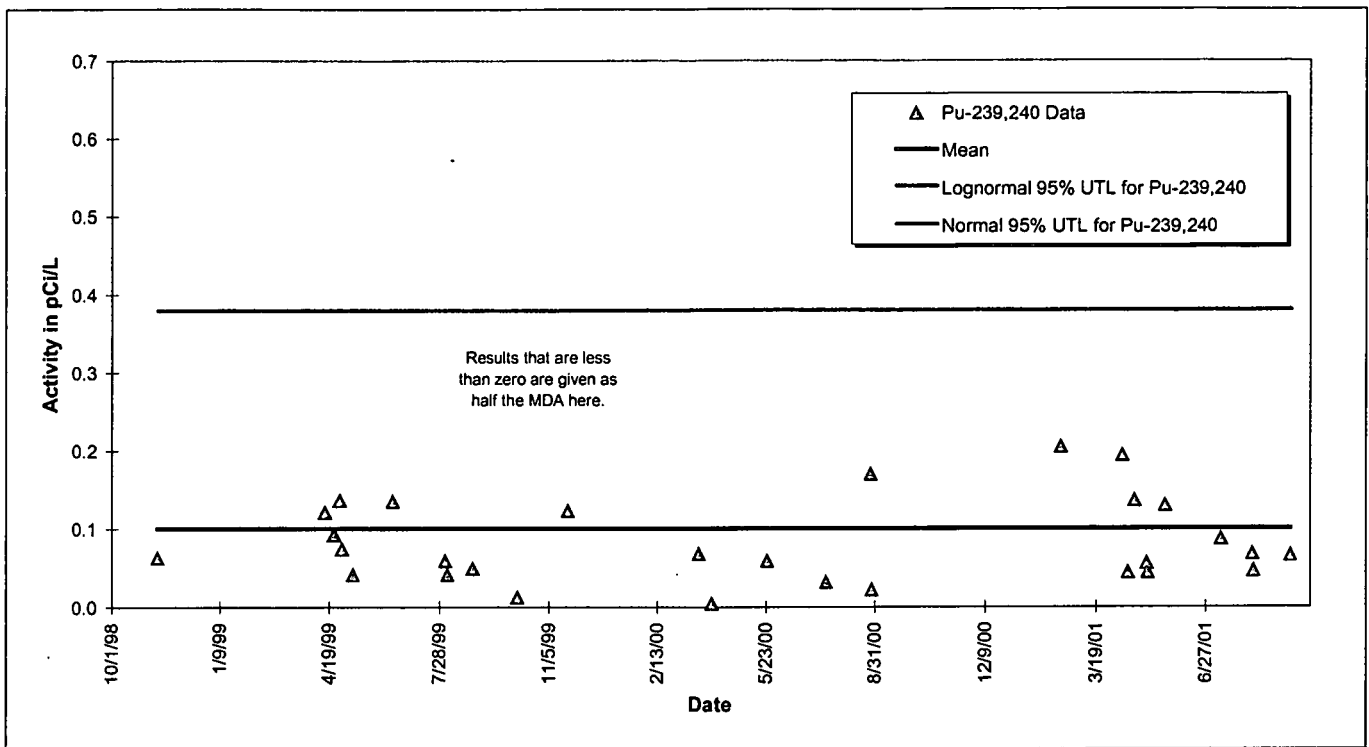


Figure 10-10. 95% UTL Plot for Pu-239,240 at GS39: WY99-01.

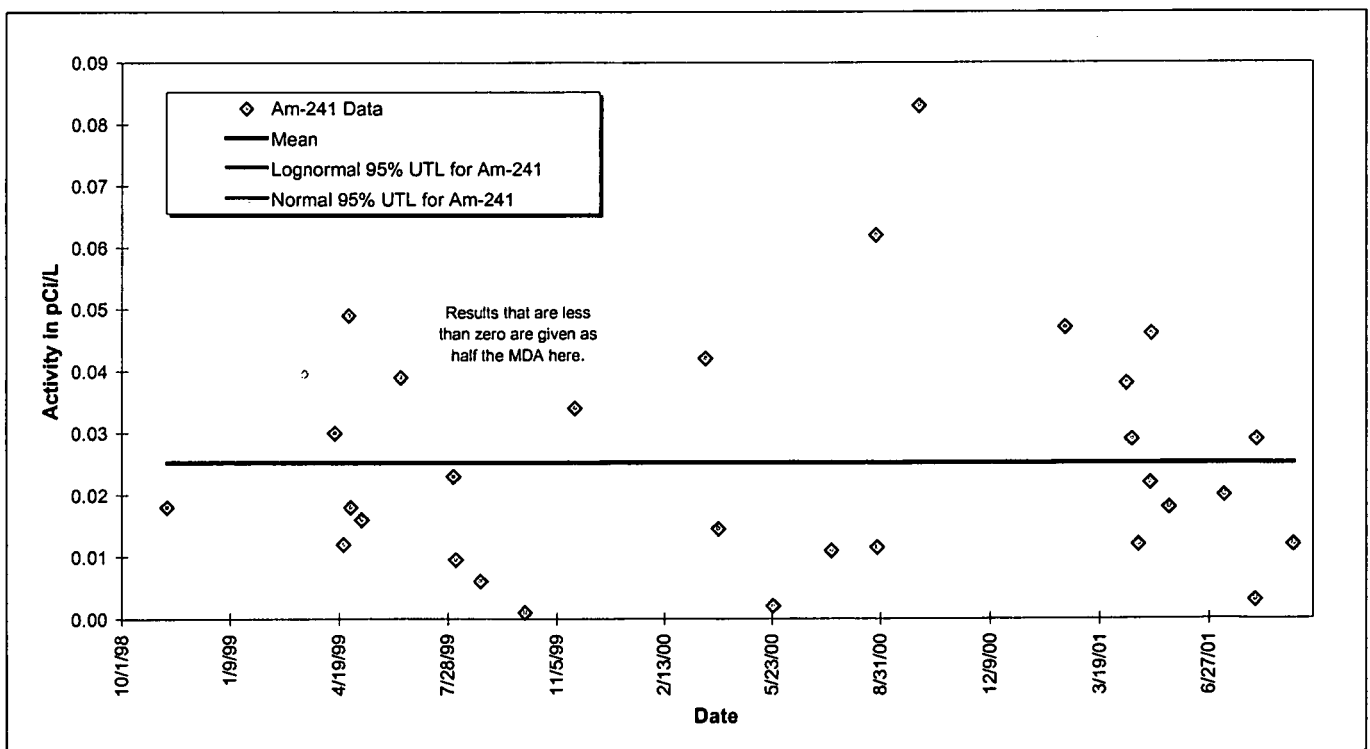


Figure 10-11. 95% UTL Plot for Am-241 at GS39: WY99-01.

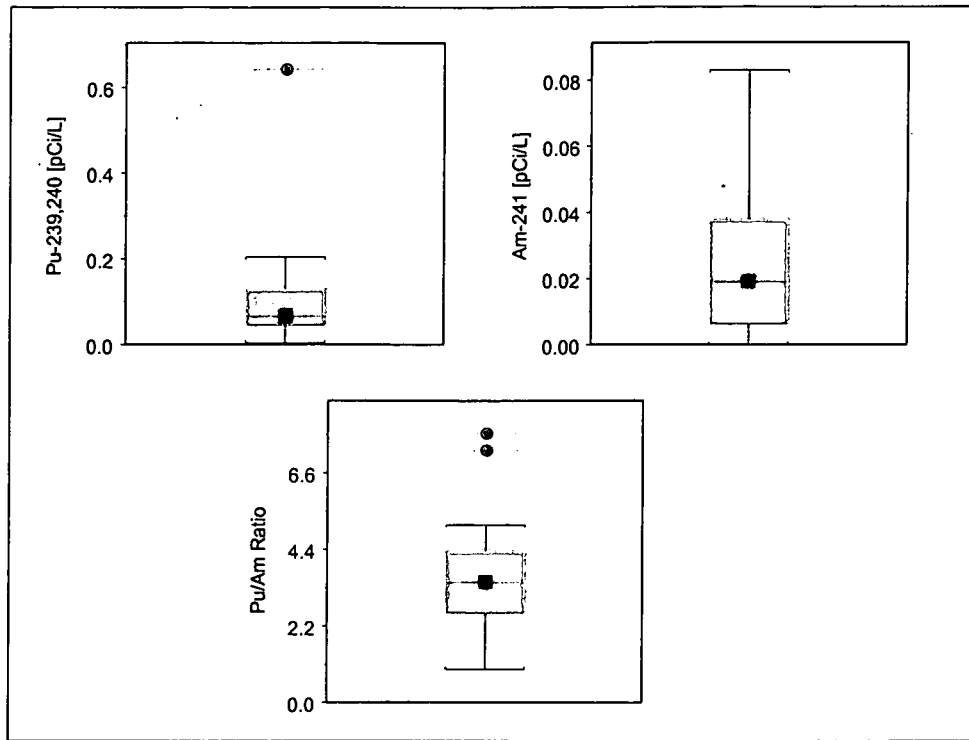


Figure 10-12. Pu and Am Box Plots for GS39: WY99-01.

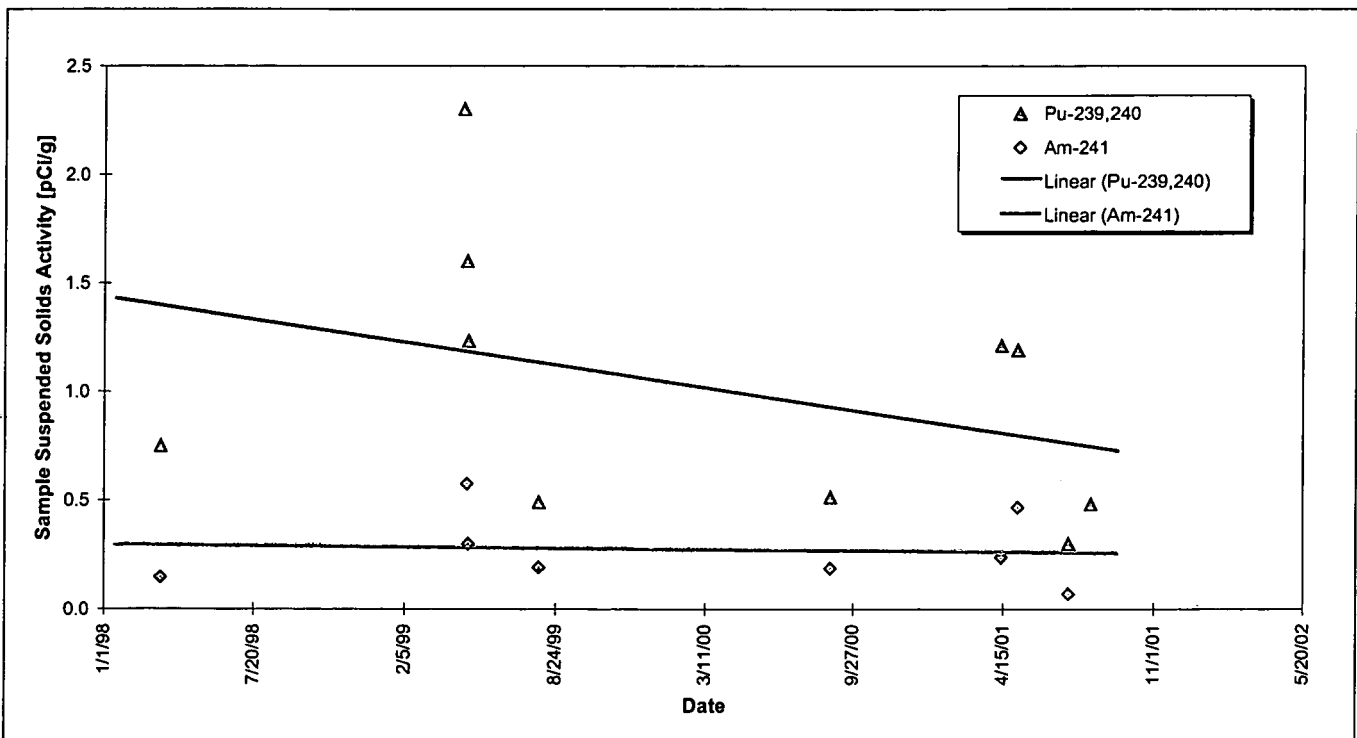


Figure 10-13. Temporal Variation of Suspended Solids Activity at GS39: WY97-01.

During WY01, locations GS51, GS52, GS53, and GS54 did not flow and no samples were collected. Similarly, after being upgraded for Performance monitoring, GS42 did not flow. For SW055, a single sample was collected during WY01 (Table 10-6). As such, no evaluation for these locations is given.

Table 10-6. Summary Statistics for Radionuclide Results from SW055 in WY99-01.

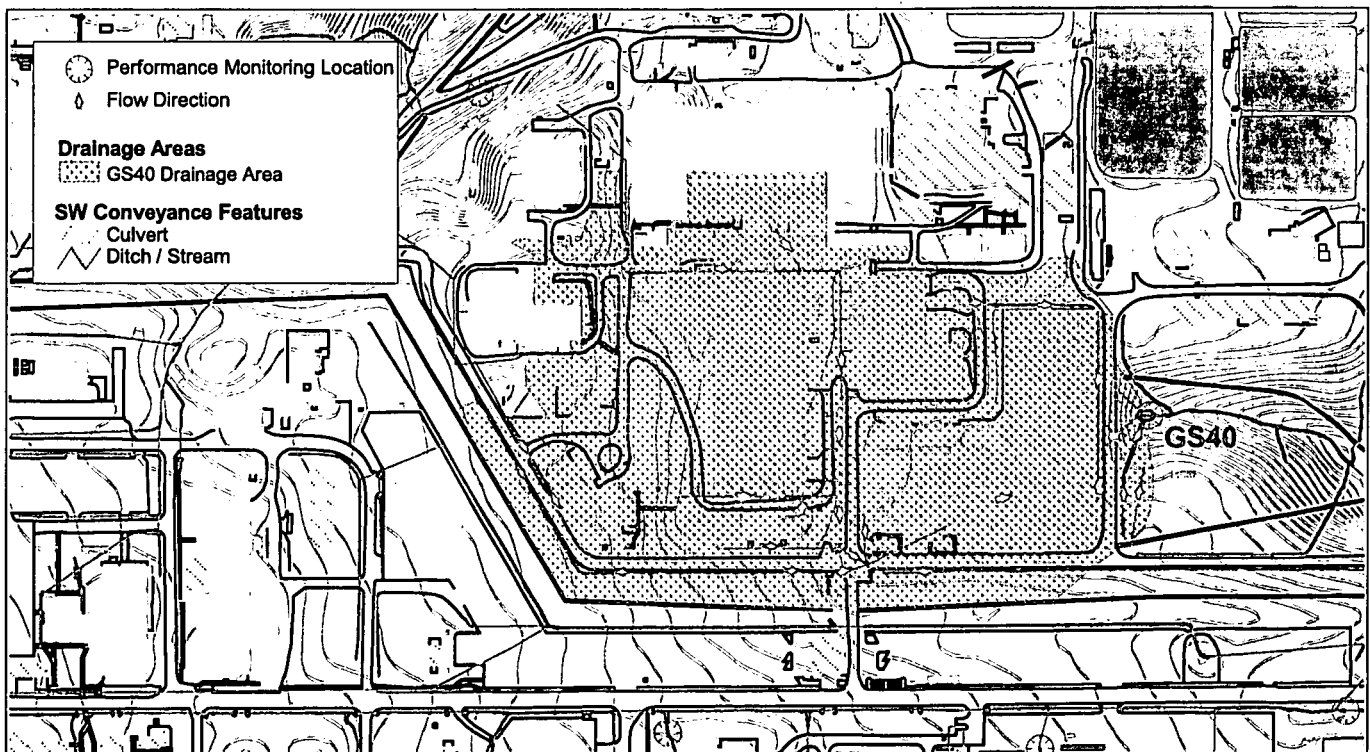
Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	0	NA	NA	NA	NA
Pu-239,240	1	3.160	NA	NA	NA
Am-241	1	0.557	NA	NA	NA
U-233,234	1	1.520	NA	NA	NA
U-235	1	0.028	NA	NA	
U-238	1	1.360	NA	NA	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

10.3.3 700 Area [B707] D&D

Monitoring location GS40 was installed on 3/4/98 in support of the source evaluation efforts related to GS10. GS40 also monitors D&D activities in the 700 Area, specifically around B707.

Figure 10-14 shows the drainage area for GS40. Other buildings within this drainage include 559, 561, 564, 559, 711, 708, 709, 778, 750, and the 750 Pad tents.



Drainage divides on building roofs are approximated.

Figure 10-14. Performance Monitoring Drainage Areas for 700 Area D&D.

Monitoring data collected at GS40 show moderate median Pu and Am activities (Table 10-7). Figure 10-15 and Figure 10-16 show the UTL plots for Pu and Am, respectively. For WY99-01, a distribution for the Pu and Am could not be determined. Figure 10-19 shows no 'suspect' Pu values, and a single 'suspect' Am value of 0.14 pCi/L. Total uranium also shows moderate activities (Table 10-7), with no results exceeding the calculated UTL (Figure 10-18).

Tritium was added to the GS40 analyte suite in the end of WY00. Table 10-7 shows moderate tritium activities, with no results exceeding the calculated UTL (Figure 10-17).

Figure 10-18 shows that none of total uranium activities were greater than the UTL. Figure 10-21 further shows that the median U-233,234/U-238 ratio is approximately 0.8, indicating the possible existence of depleted uranium in the drainage.

Only one TSS result was available during the WY97-01 period. Therefore, temporal variation of suspended solids activity is not included herein.

Table 10-7. Summary Statistics for Radionuclide Results from GS40 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	NA	NA	NA	NA	NA
Pu-239,240	38	0.018	0.047	0.085	NA ^c
Am-241	38	0.032	0.069	0.140	NA ^c
Tritium	16	0	67	220	257 ^b
U-233,234	17	1.200	1.728	2.020	5.03 ^b
U-235	17	0.055	0.073	0.080	
U-238	17	1.410	2.026	2.090	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

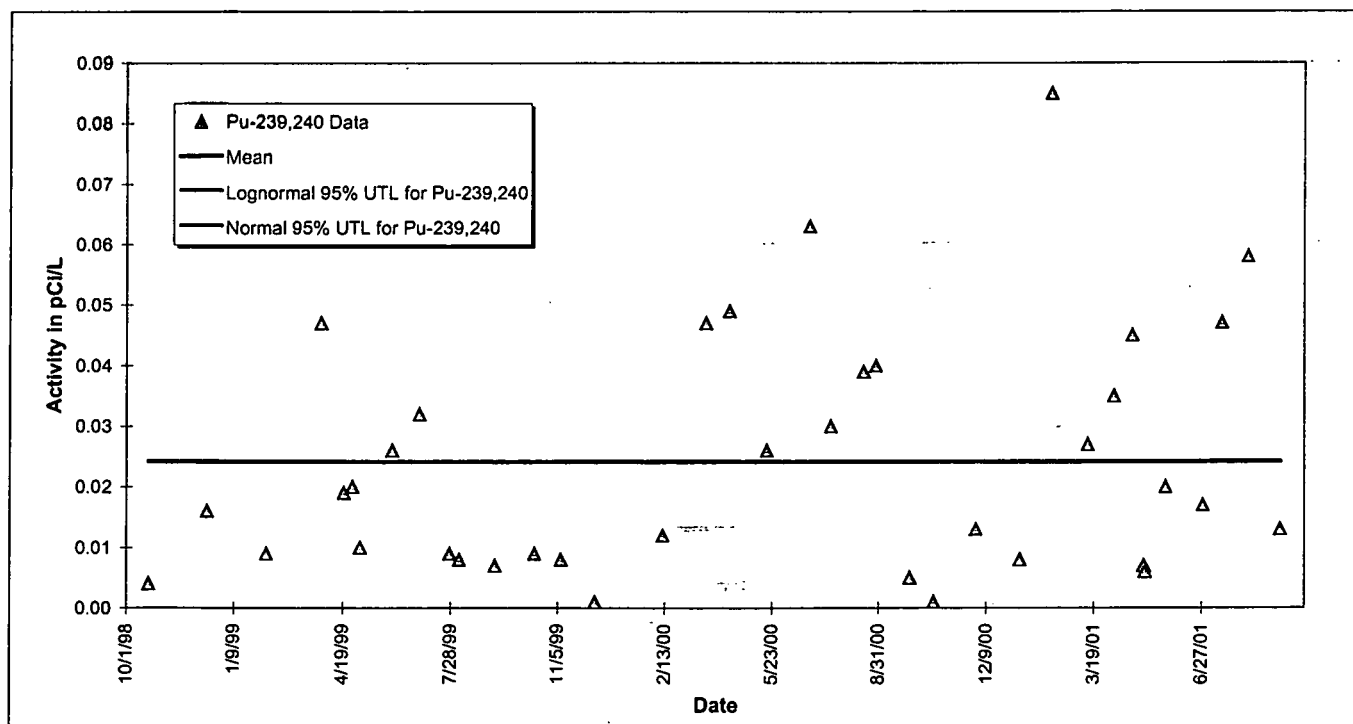


Figure 10-15. 95% UTL Plot for Pu-239,240 at GS40: WY99-01.

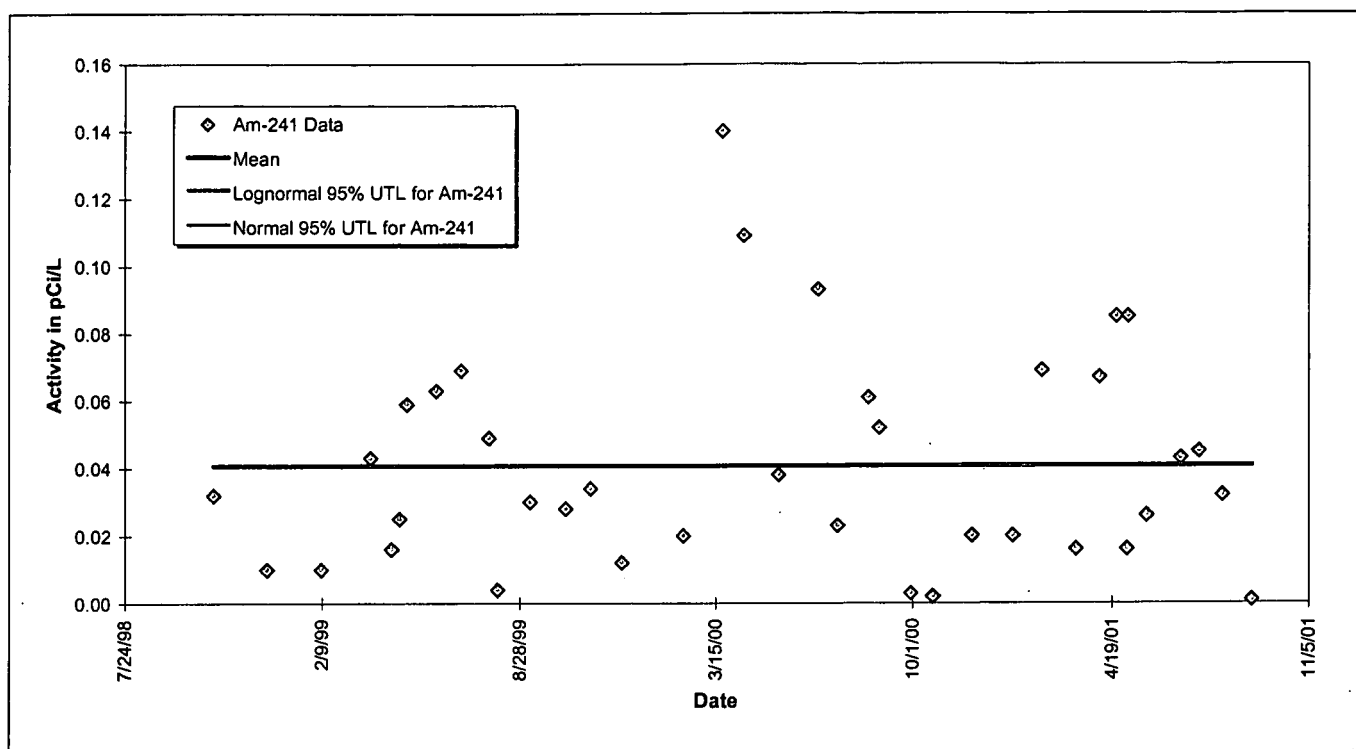


Figure 10-16. 95% UTL Plot for Am-241 at GS40: WY99-01.

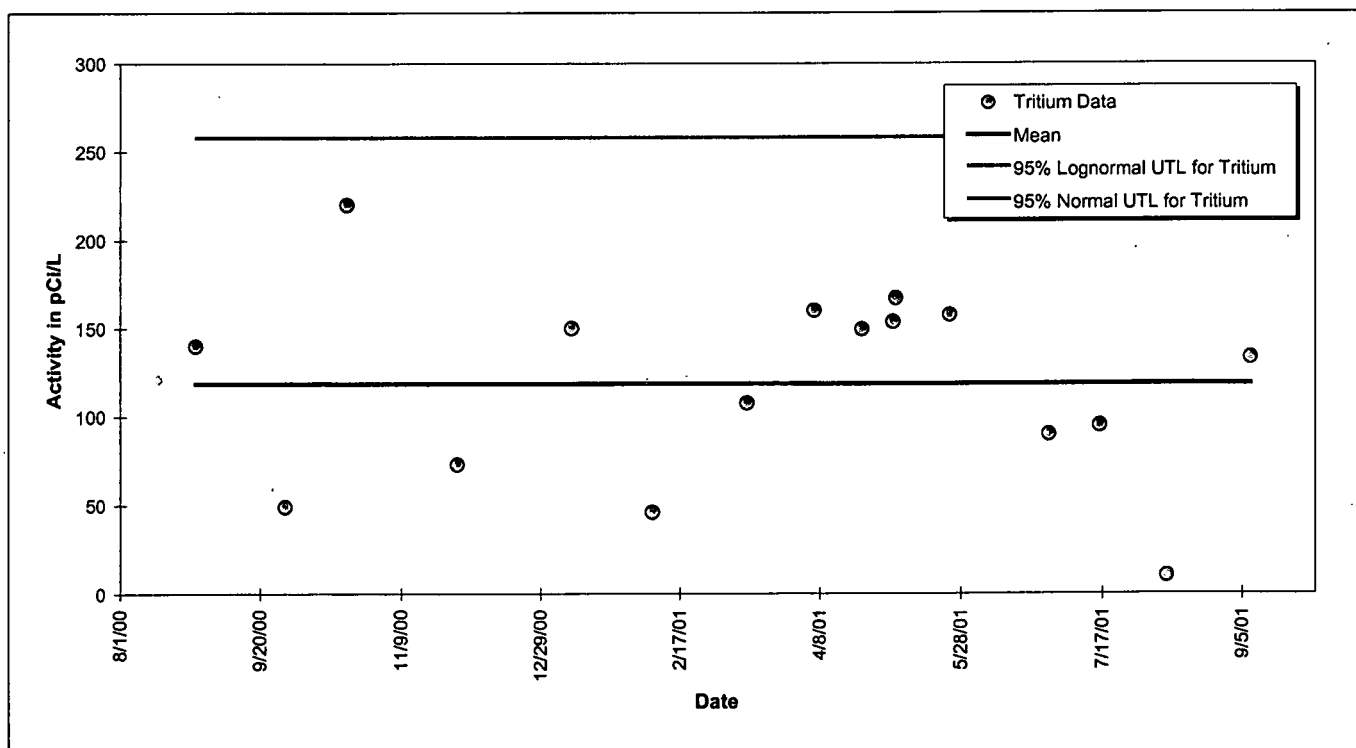


Figure 10-17. 95% UTL Plot for Tritium at GS40: WY00-01.

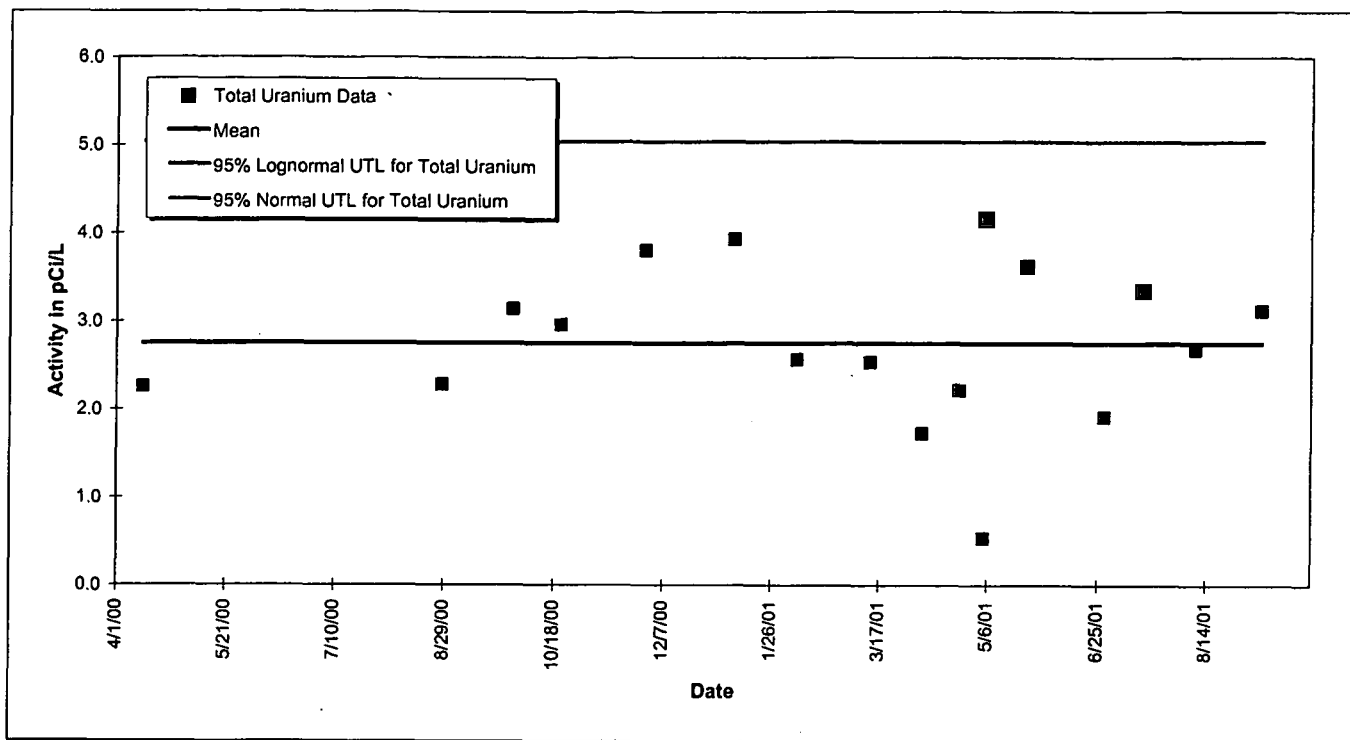


Figure 10-18. 95% UTL Plot for Total Uranium at GS40: WY00-01.

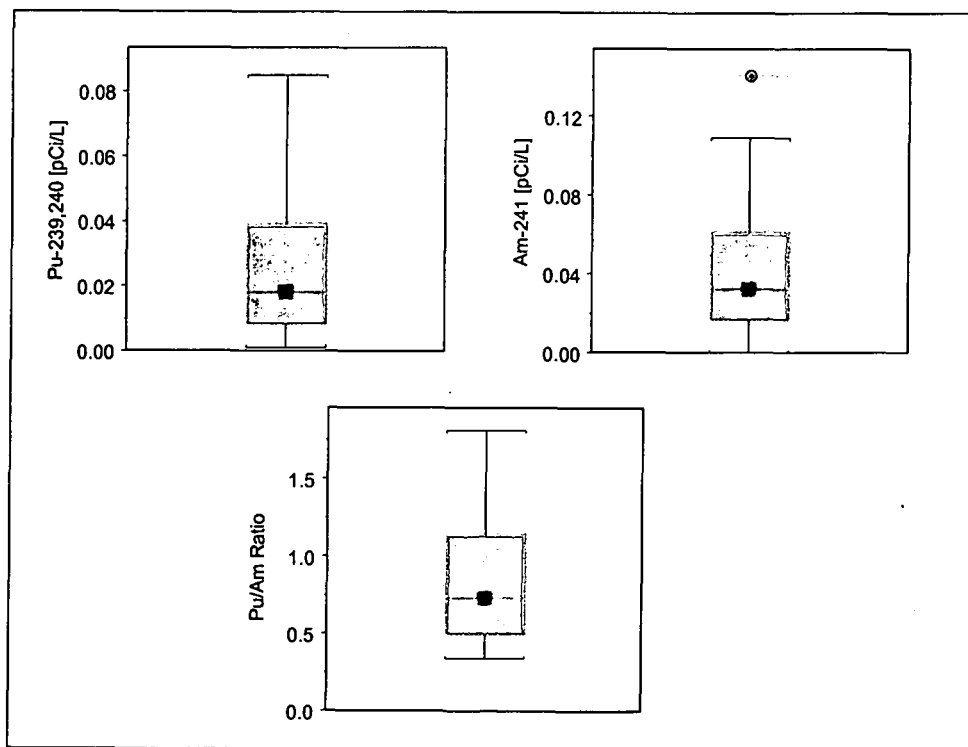


Figure 10-19. Pu and Am Box Plots for GS40: WY99-01.

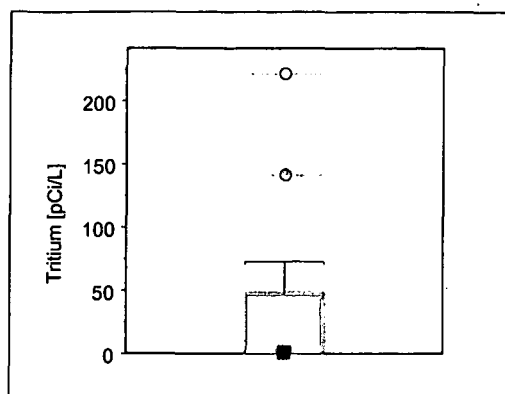


Figure 10-20. Tritium Box Plot for GS40: WY99-01.

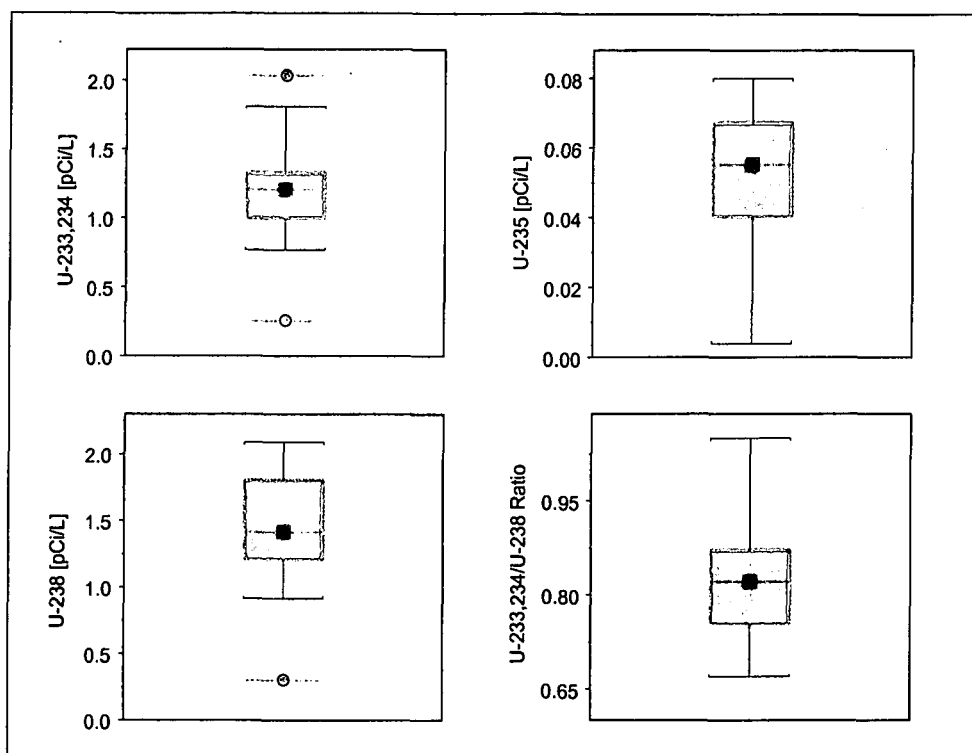


Figure 10-21. Uranium Box Plots for GS40: WY99-01.

Total metals were added to the GS40 analyte suite in the end of WY00. Table 10-8 shows the total metals results for samples collected at GS40. Figure 10-22 through Figure 10-26 show the UTL plots for the metals. For the metals with a determined distribution, only Li and Sr exceeded the calculated UTL. These higher values were not noted for subsequent samples.

Data for metals Hg, Ag, Tl, and Sn had undetermined distributions. All of the Hg data were 'undetected'. For Ag, only two of the results were not 'undetected'. One result slightly exceeded the detection limit, the cause of the other result is unknown. For Tl, all but one of the results were 'undetected'; the cause of the other result is unknown. For Sn, all but two of the results were 'undetected'; the cause of those results is unknown.

Table 10-8. Summary Statistics for Metals Results from GS40 in WY00-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	16	0.0%	2965	5985	9170	25940 ^a
ANTIMONY	16	0.0%	14.2	23.7	28.1	34.4 ^b
ARSENIC	16	6.3%	2.35	5.48	9.10	12.2 ^a
BARIUM	16	0.0%	258	393	667	872 ^a
BERYLLIUM	16	12.5%	0.17	0.33	0.52	0.56 ^b
CADMIUM	16	6.3%	0.86	1.73	2.40	2.79 ^b
CALCIUM	16	0.0%	86800	140000	194000	212553 ^b
CHROMIUM	16	0.0%	4.70	7.90	11.1	20.4 ^a
COBALT	16	12.5%	1.55	2.75	3.70	4.21 ^b
COPPER	16	0.0%	10.2	19.1	26.3	31.8 ^a
IRON	16	0.0%	4450	11200	20100	30555 ^a
LEAD	16	6.3%	5.00	10.3	17.5	38.0 ^a
LITHIUM	16	0.0%	14.2	27.7	73.2	62.3 ^a
MAGNESIUM	16	0.0%	21150	34900	45700	52891 ^b
MANGANESE	16	0.0%	638	1185	2210	4988 ^a
MERCURY	16	100.0%	0.05	0.05	0.05	NA ^c
MOLYBDENUM	16	0.0%	1.65	2.05	2.20	2.77 ^b
NICKEL	16	0.0%	3.90	6.45	8.80	11.0 ^a
POTASSIUM	16	0.0%	9665	22175	39600	42666 ^a
SELENIUM	16	50.0%	0.63	1.35	1.70	1.98 ^a
SILVER	16	87.5%	0.13	0.14	0.87	NA ^c
SODIUM	16	0.0%	171000	679750	1330000	1727958 ^a
STRONTIUM	16	0.0%	671	1016	1880	1815 ^b
THALLIUM	16	93.8%	0.49	0.50	1.50	NA ^c
TIN	16	87.5%	0.44	0.49	1.50	NA ^c
VANADIUM	16	0.0%	8.05	16.5	22.2	38.9 ^a
ZINC	16	0.0%	346	618	768	1580 ^a

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

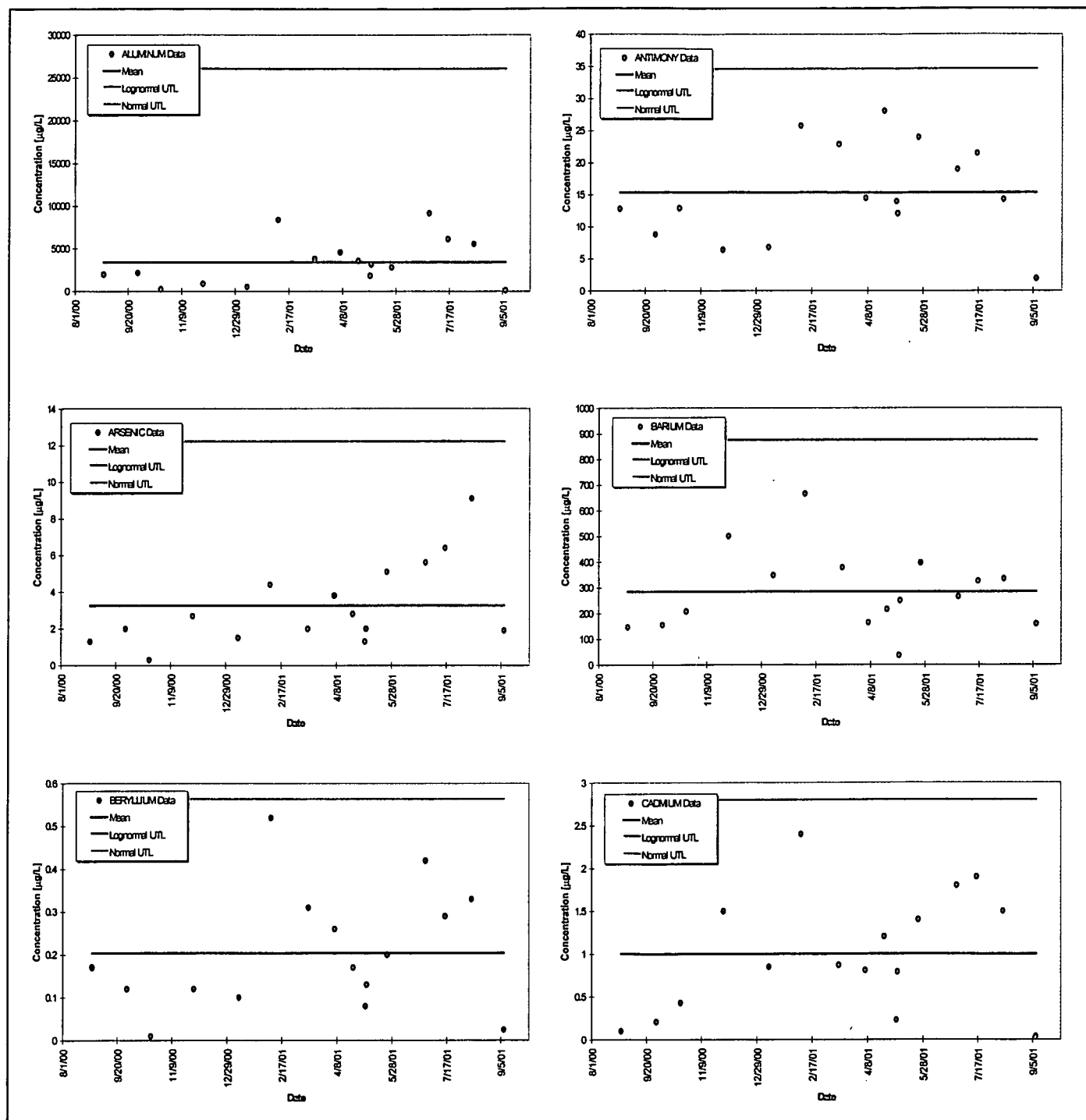


Figure 10-22. Total Metals UTL Plots for GS40: Aluminum through Cadmium.

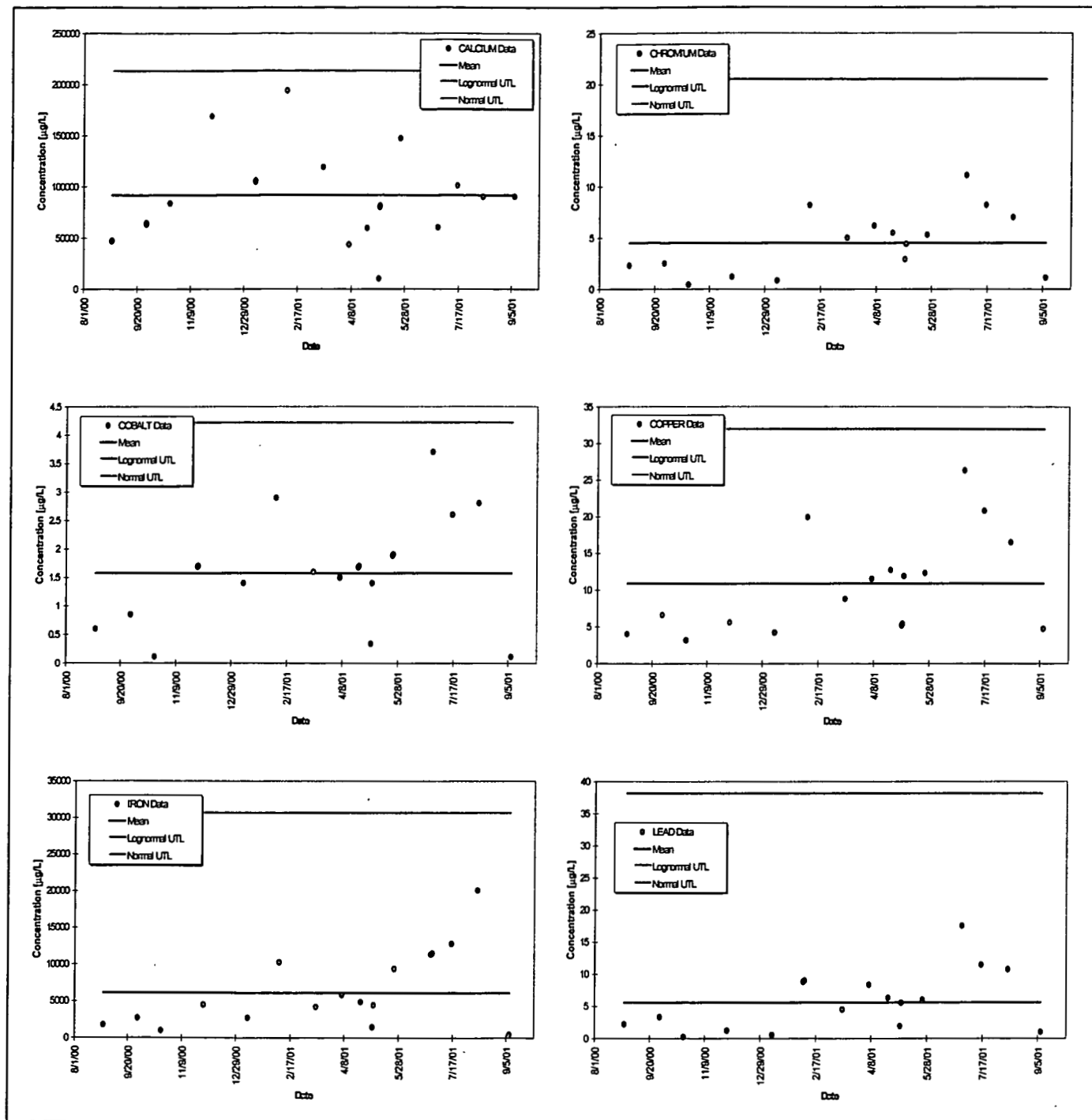


Figure 10-23. Total Metals UTL Plots for GS40: Calcium through Lead.

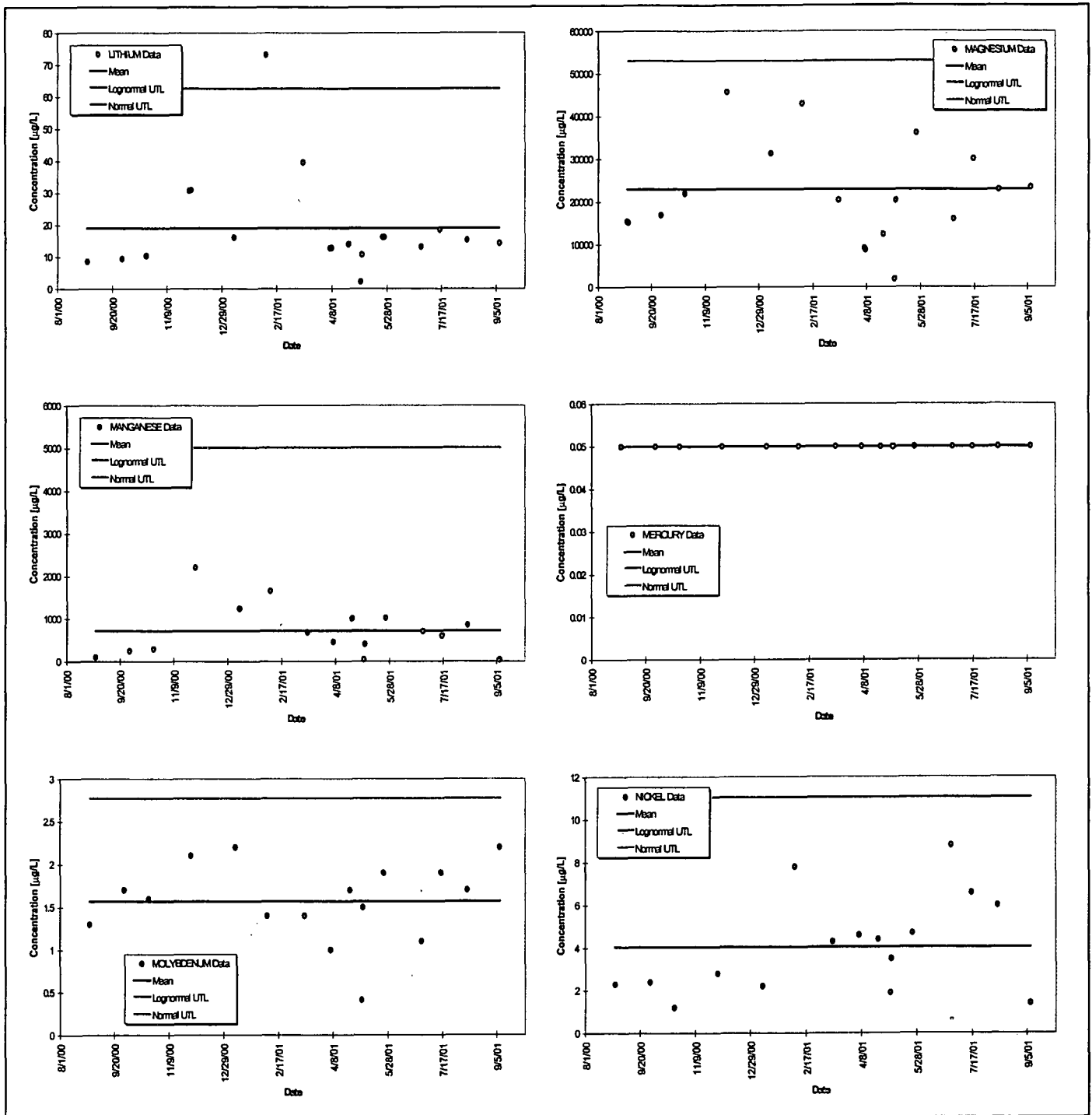


Figure 10-24. Total Metals UTL Plots for GS40: Lithium through Nickel.

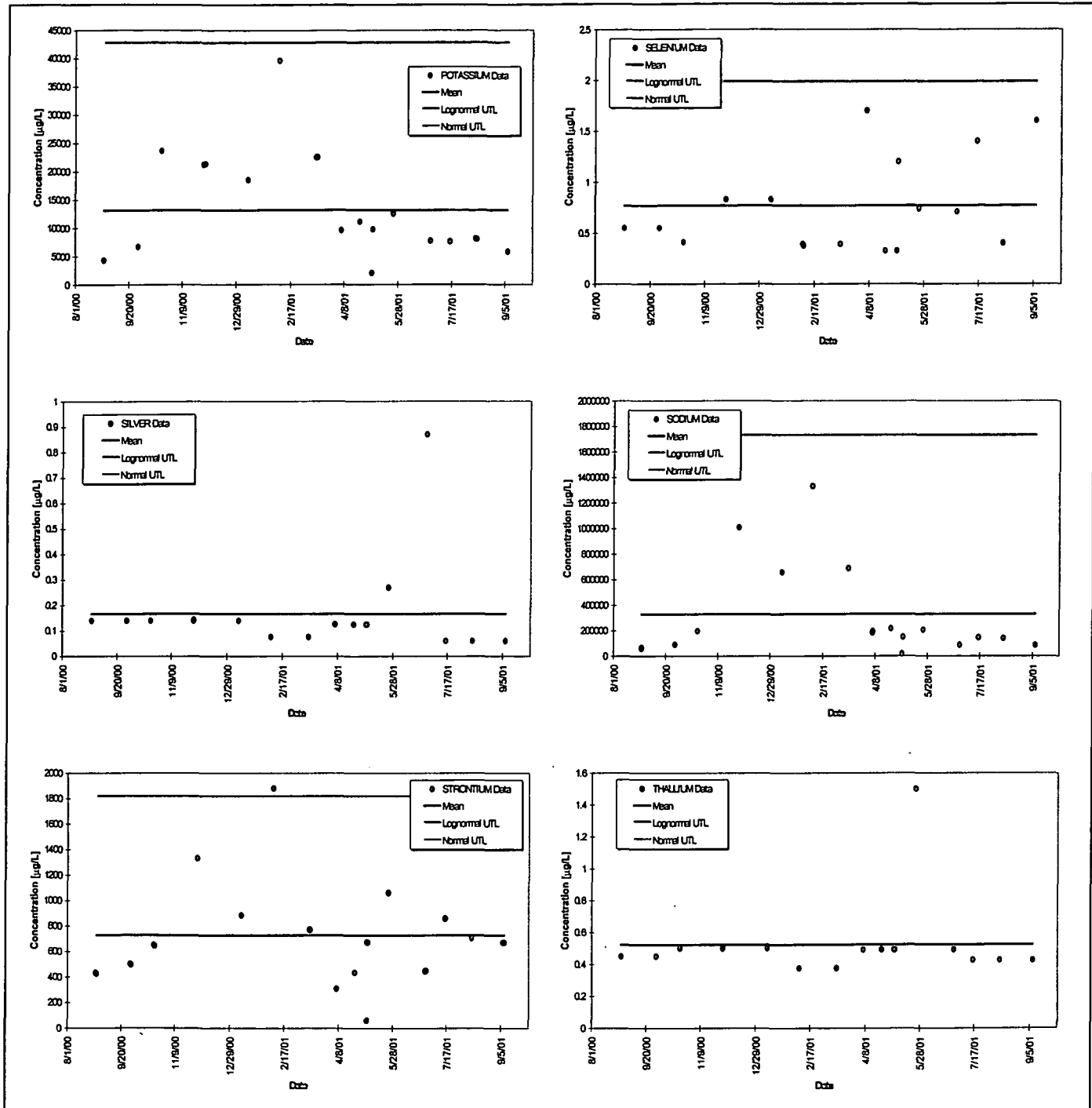


Figure 10-25. Total Metals UTL Plots for GS40: Potassium through Thallium.

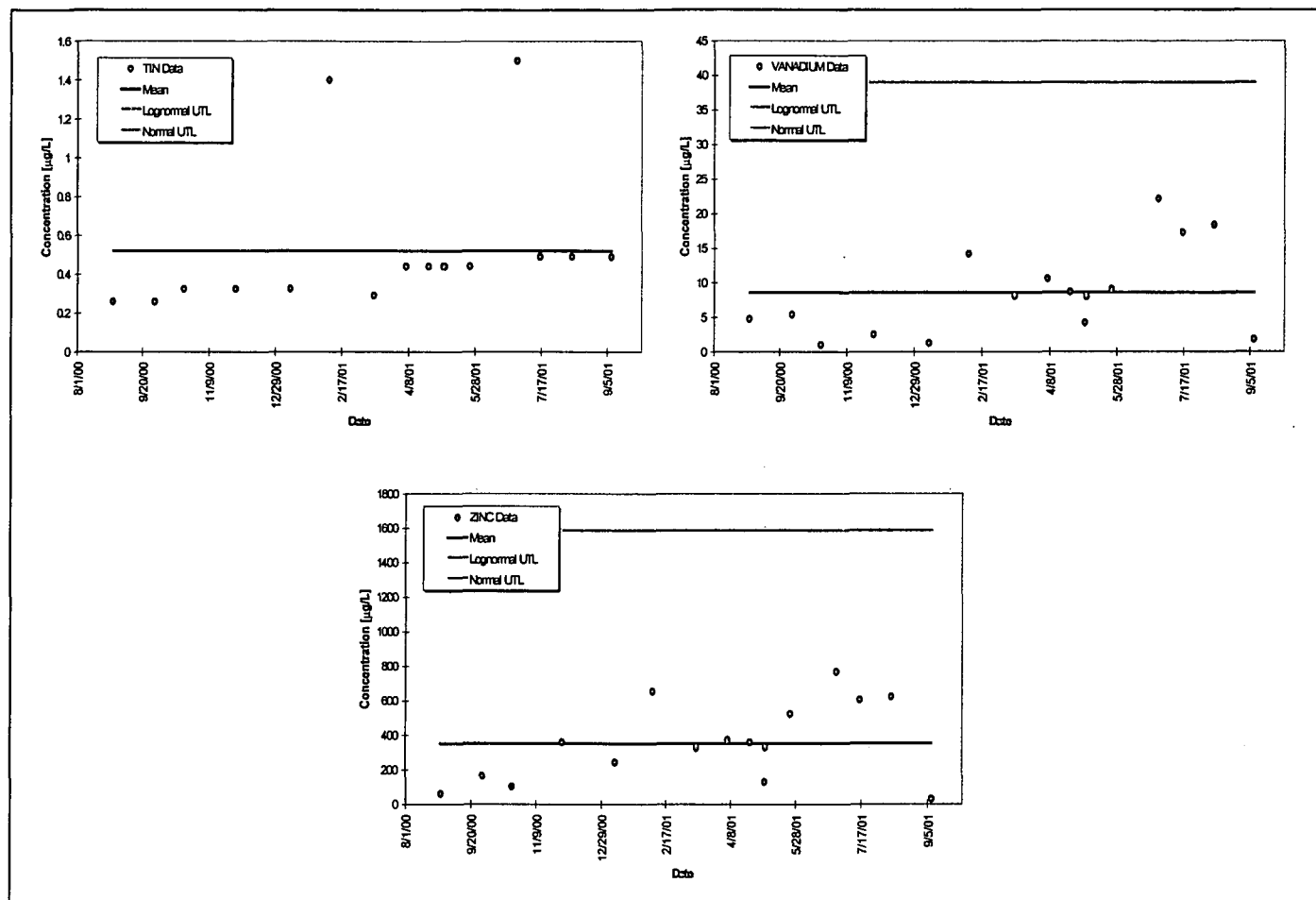


Figure 10-26. Total Metals UTL Plots for GS40: Tin through Zinc.

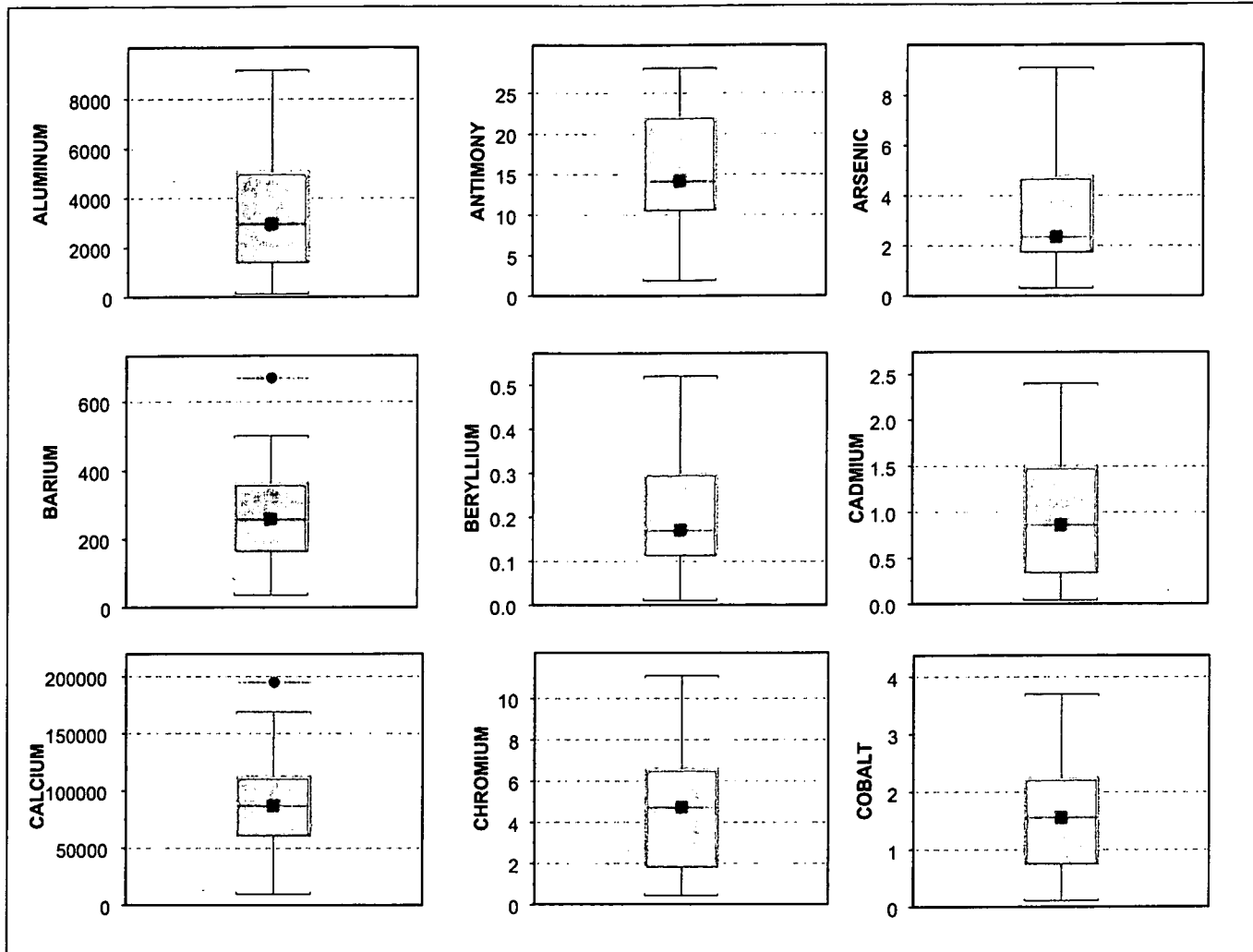


Figure 10-27. Total Metals Box Plots for GS40: Aluminum through Cobalt.

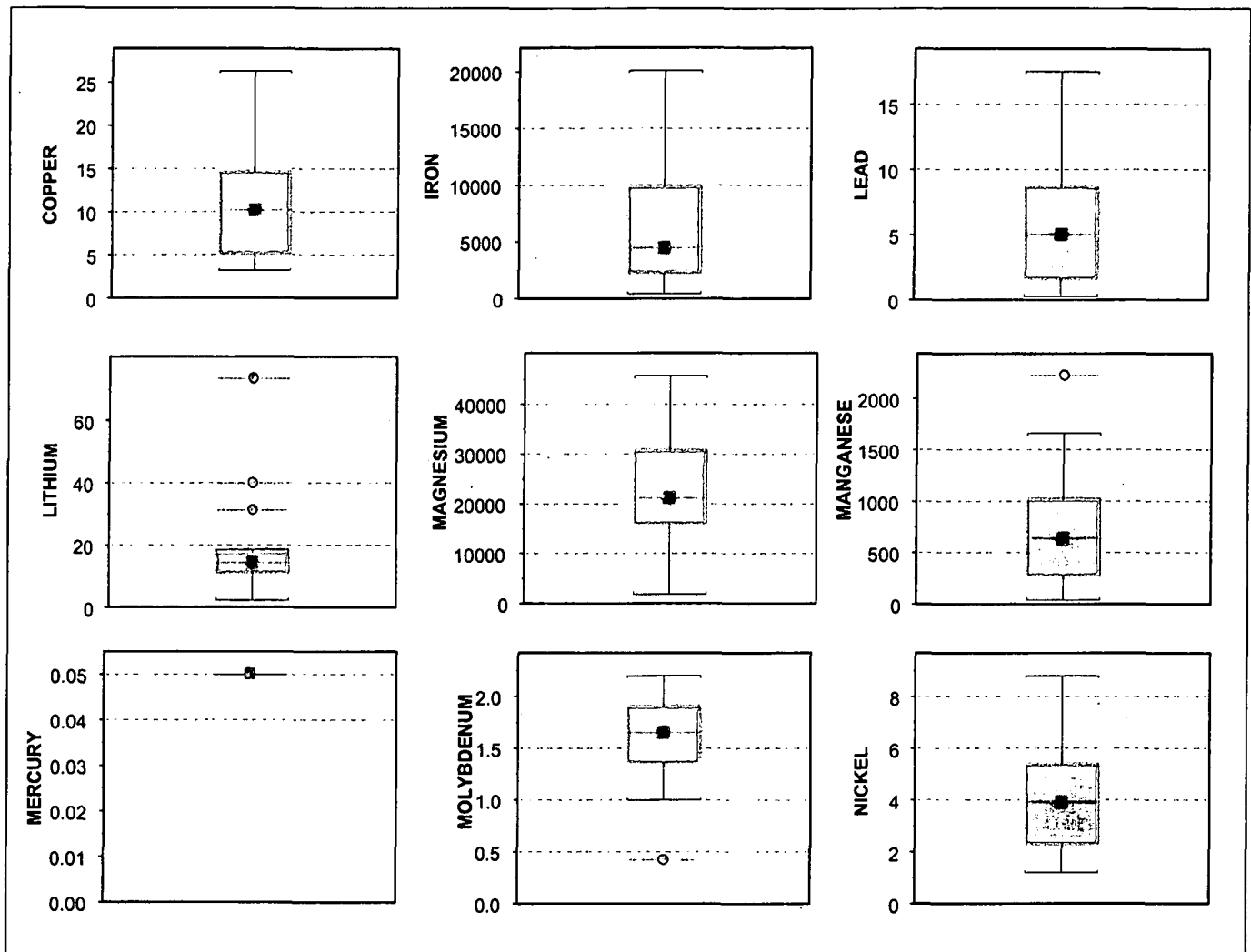


Figure 10-28. Total Metals Box Plots for GS40: Copper through Nickel.

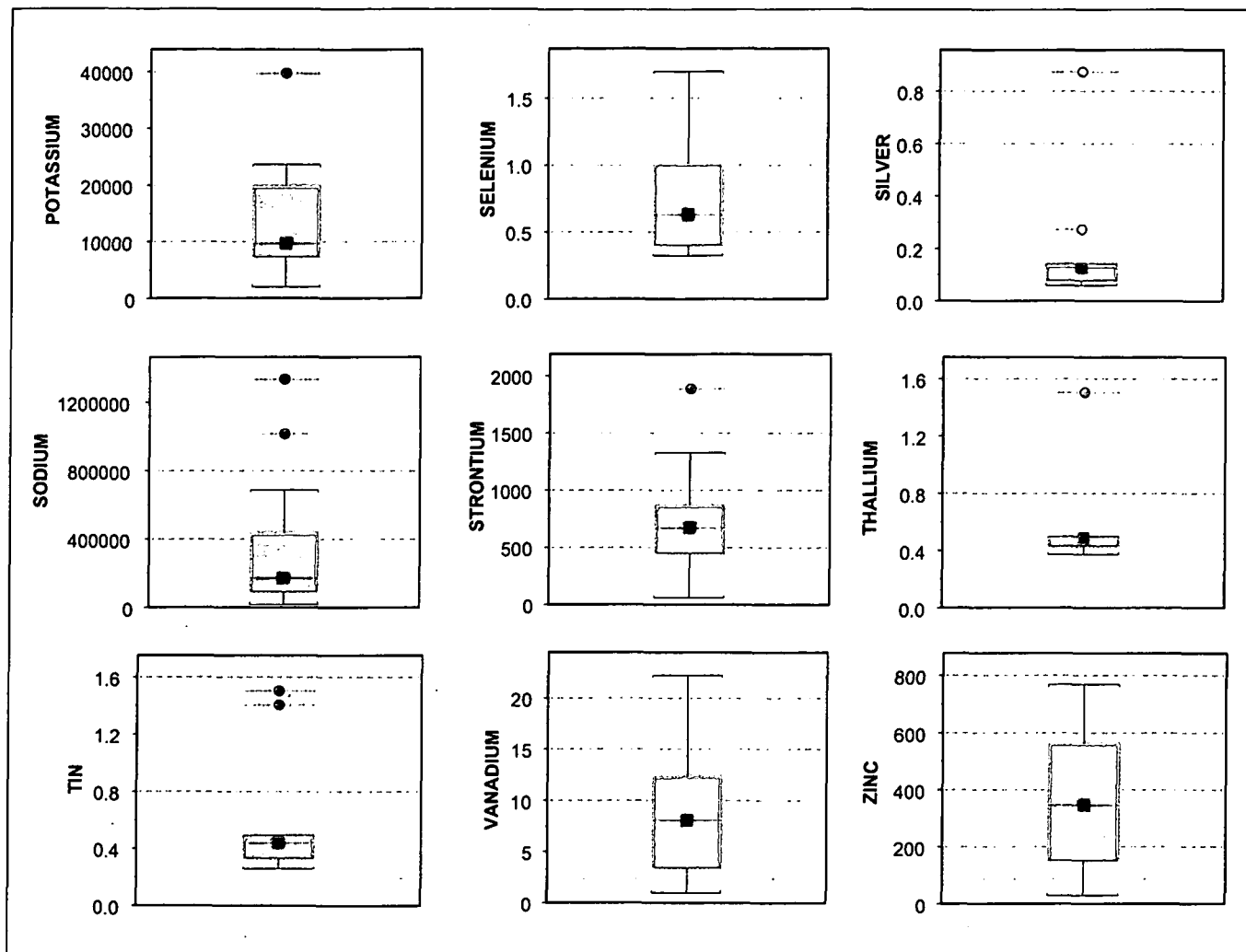
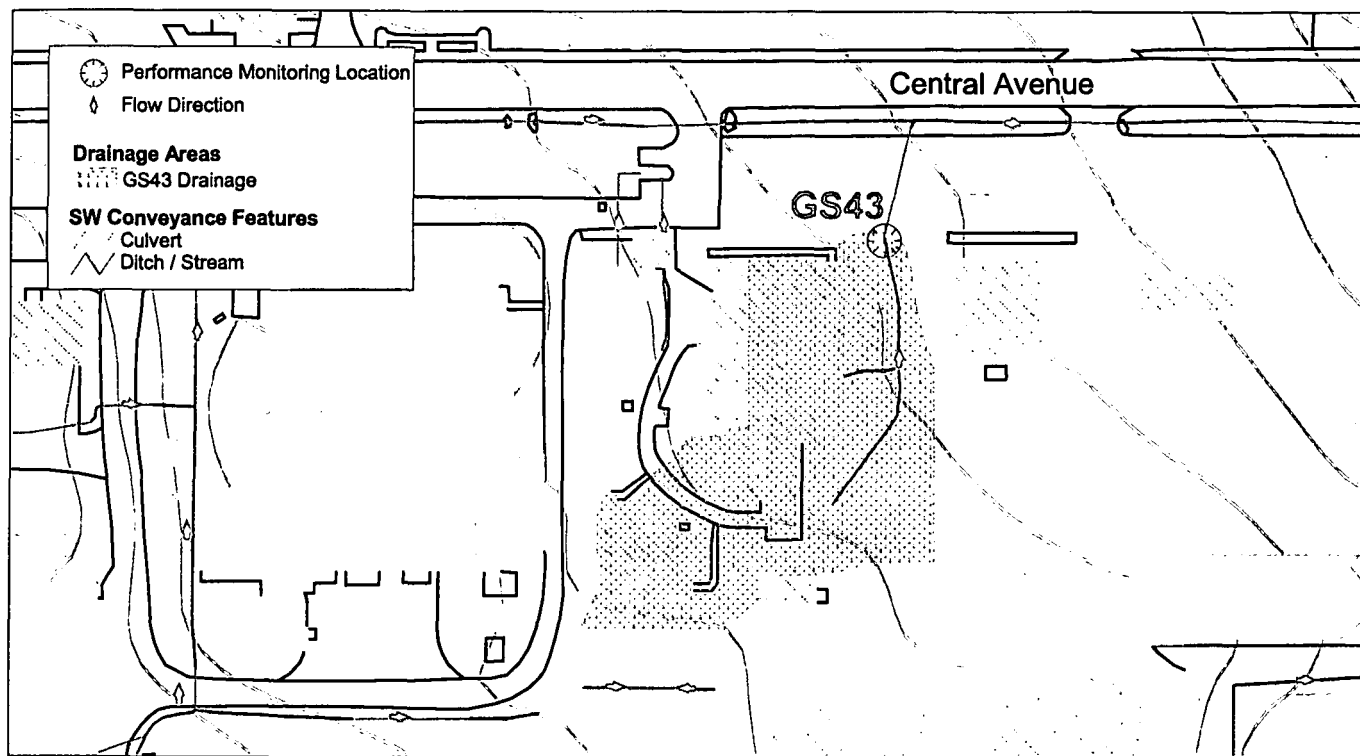


Figure 10-29. Total Metals Box Plots for GS40: Potassium through Zinc.

10.3.4 Building 886 D&D

Monitoring location GS43 was installed on 6/1/99 in support of the D&D of Building 886. Figure 10-30 shows the drainage area for GS43. Other buildings within this drainage include 875 and 880.



Drainage divides on building roofs are approximated.

Figure 10-30. Performance Monitoring Drainage Areas for B886 D&D.

Monitoring data collected at GS43 show low Pu and Am activities (Table 10-9). Figure 10-31 and Figure 10-32 show the UTL plots for Pu and Am, respectively. During WY99-01, a single Pu result exceeded the calculated UTL. Subsequent sample data was not available to assess the persistence of this value. However, it should be noted that this composite sample (started 7/15/01) was completed on 5/24/02, subsequent to the D&D of B886. The fact that significant areas of disturbed soil were available for transport as TSS in runoff may have resulted in the slightly higher Pu activities. During WY99-01, no Am results exceeded the calculated UTL.

Table 10-9 shows that GS43 has the highest uranium activities for automated monitoring locations, as expected due to the proximity of B886. Figure 10-33 shows that none of total uranium activities were greater than the UTL, indicating that the activities did not change significantly during the evaluation period. It should be noted that GS43 shows a median U-233,234/U-238 ratio significantly greater than 1 (Figure 10-35), indicating the possible existence of modified uranium. The ratios at this location are likely due to the proximity of GS43 to Building 886.

The Pu/Am ratio box plot is not included since only two samples met the MDA criteria. The trend plot for suspended solids activity is also not included since only one sample met the MDA criteria.

Table 10-9. Summary Statistics for Radionuclide Results from GS43 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	3	9	25	32	NA
Pu-239,240	14	0.006	0.025	0.075	0.060 ^a
Am-241	14	0.005	0.011	0.018	0.031 ^a / 0.022 ^b
U-233,234	11	7.250	11.850	17.900	40.76 ^a / 27.47 ^b
U-235	11	0.265	0.466	0.593	
U-238	11	2.360	3.400	4.650	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

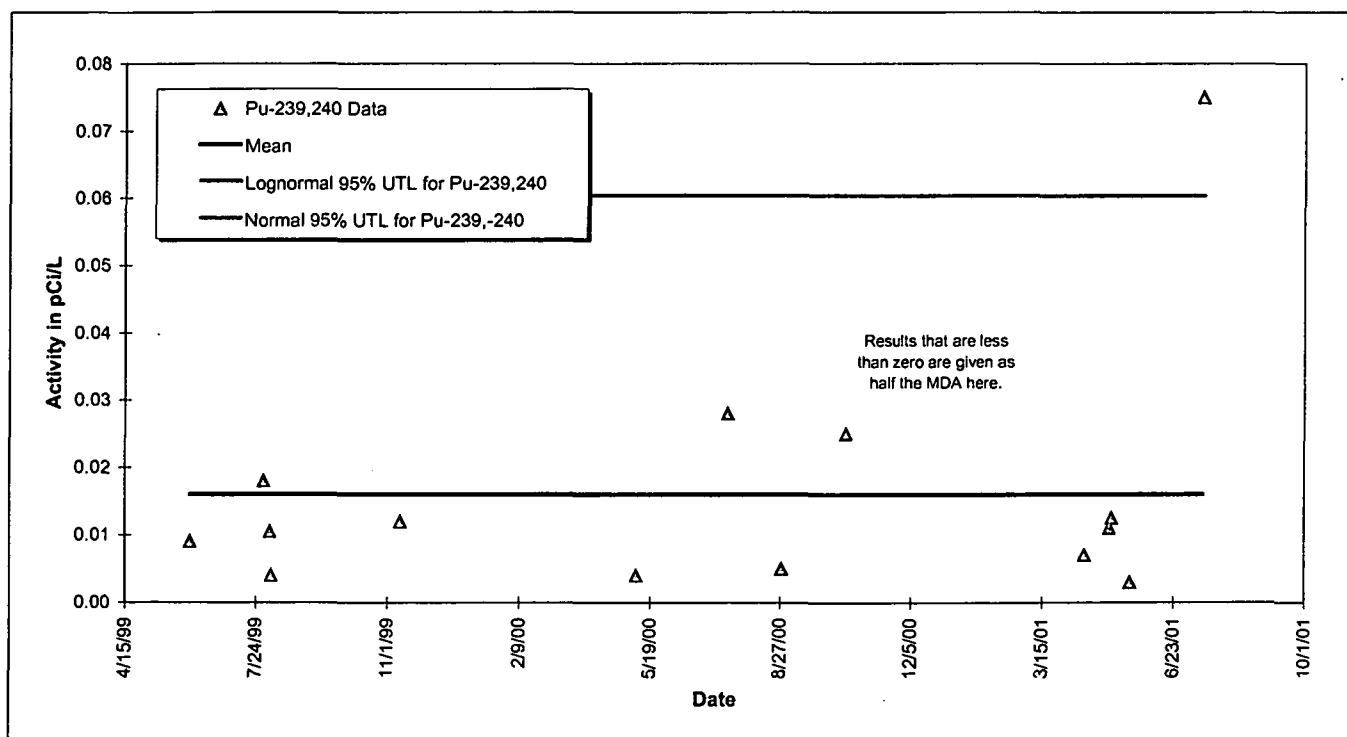


Figure 10-31. 95% UTL Plot for Pu-239,240 at GS43: WY99-01.

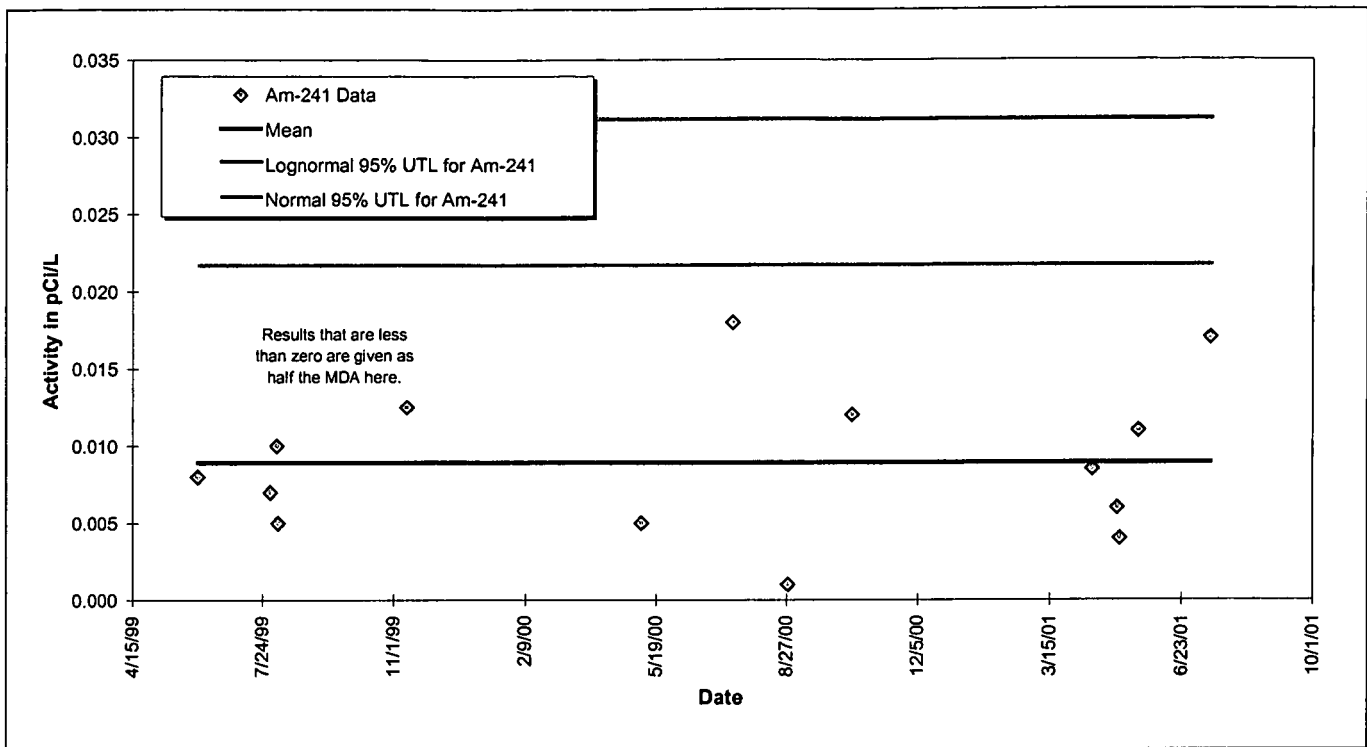


Figure 10-32. 95% UTL Plot for Am-241 at GS43: WY99-01.

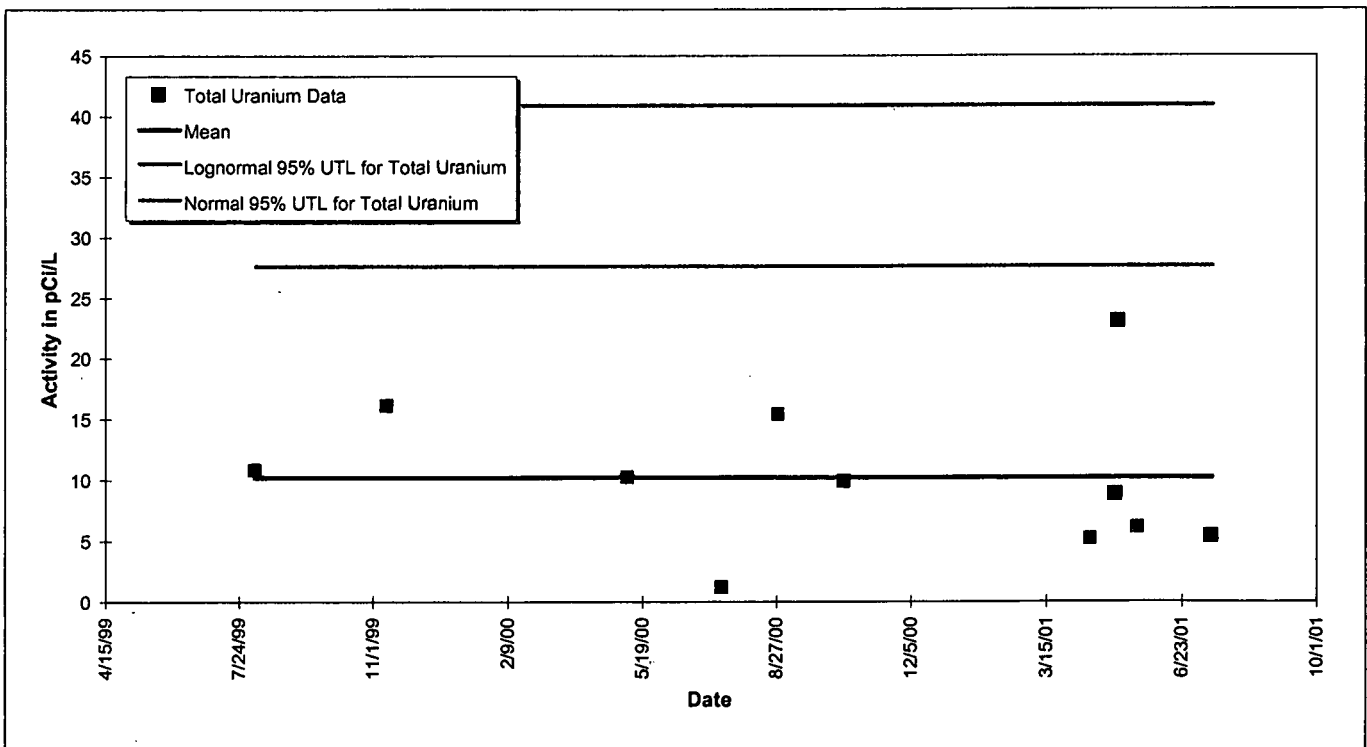


Figure 10-33. 95% UTL Plot for Total Uranium at GS43: WY99-01.

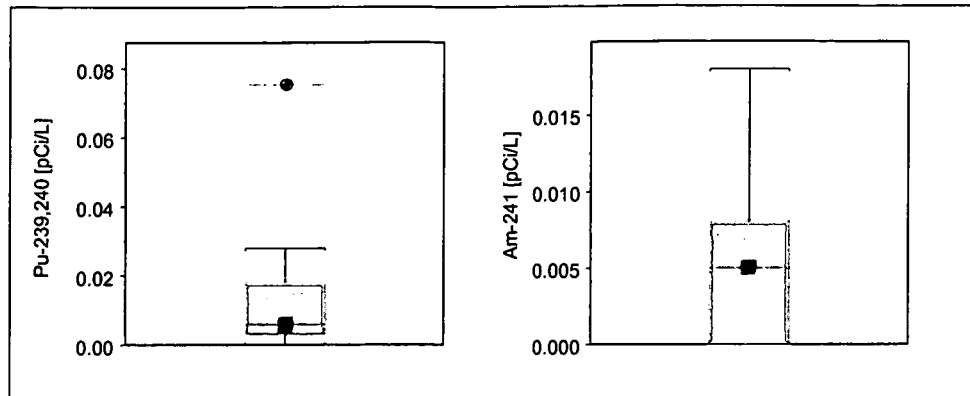


Figure 10-34. Pu and Am Box Plots for GS43: WY99-01.

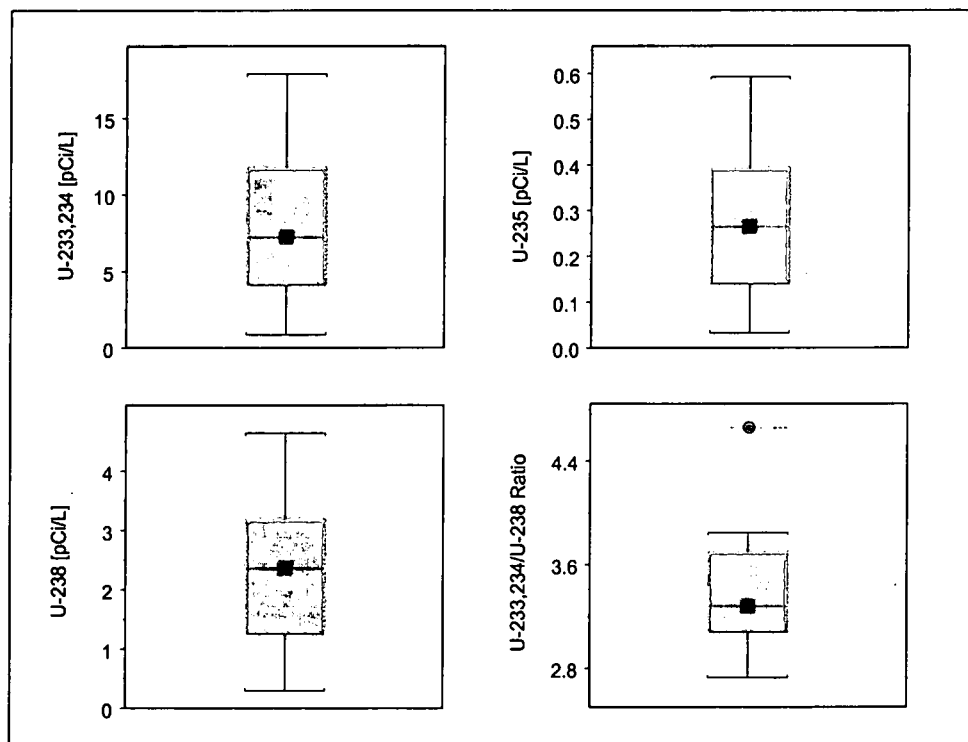


Figure 10-35. Uranium Box Plots for GS43: WY99-01.

Table 10-10 shows the total metals results for samples collected at GS43. Figure 10-36 through Figure 10-40 show the UTL plots for the metals. For the metals with a determined distribution, Be, Cu, and Mn each showed a single result that exceeded the calculated UTL. Subsequent sample data was not available to assess the persistence of these values. However, it should be noted that this composite sample (started 7/15/01) was completed on 5/24/02, subsequent to the D&D of B886. The fact that significant areas of disturbed soil were available for transport as TSS in runoff may have resulted in the higher concentrations.

For the metals with undetermined distributions, As, Cr, Co, Pb, Ni, Ag, Sn, and V show 'suspect' values as indicated by the boxplots. All of these values, except for Ag and Sn, were associated with the 7/15/01 sample completed after the D&D of B886. For Sn, the 'suspect' value was only slightly above the detect limit. Similarly for Ag, the 'suspect' values were undetects (detect limit at 0.28 $\mu\text{g/L}$).

Table 10-10. Summary Statistics for Metals Results from GS43 in WY99-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	14	0.0%	387	1234	16700	23401 ^a
ANTIMONY	14	28.6%	0.63	0.92	1.50	1.80 ^a
ARSENIC	14	35.7%	0.83	1.11	6.30	^c
BARIUM	14	0.0%	85.4	112	137	160 ^b
BERYLLIUM	14	35.7%	0.09	0.13	0.66	0.64 ^a
CADMIUM	14	28.6%	0.11	0.22	0.26	0.38 ^a
CALCIUM	14	0.0%	39950	47455	60000	71407 ^b
CHROMIUM	14	0.0%	1.01	1.85	21.4	^c
COBALT	14	57.1%	0.10	0.40	3.90	^c
COPPER	14	0.0%	3.10	4.92	16.9	12.0 ^a
IRON	14	0.0%	274	900	11800	14563 ^a
LEAD	14	42.9%	0.68	3.12	15.5	^c
LITHIUM	14	0.0%	9.80	13.5	17.9	24.1 ^a
MAGNESIUM	14	0.0%	13700	18605	25100	28629 ^b
MANGANESE	14	0.0%	4.30	18.5	134	99.7 ^a
MERCURY	12	100.0%	0.05	0.05	0.05	^c
MOLYBDENUM	14	0.0%	3.35	5.00	6.00	9.33 ^a
NICKEL	14	0.0%	1.04	2.03	18.2	^c
POTASSIUM	14	0.0%	4845	5282	7060	7543 ^a
SELENIUM	14	14.3%	1.85	2.91	4.40	5.97 ^a
SILVER	14	100.0%	0.13	0.14	0.14	^c
SODIUM	14	0.0%	35050	42970	59100	69953 ^b
STRONTIUM	14	0.0%	383	515	718	803 ^b
THALLIUM	14	100.0%	0.49	0.65	0.65	^c
TIN	14	85.7%	0.36	0.45	0.92	^c
VANADIUM	14	0.0%	2.80	4.57	32.4	^c
ZINC	14	0.0%	135	174	210	316 ^a

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

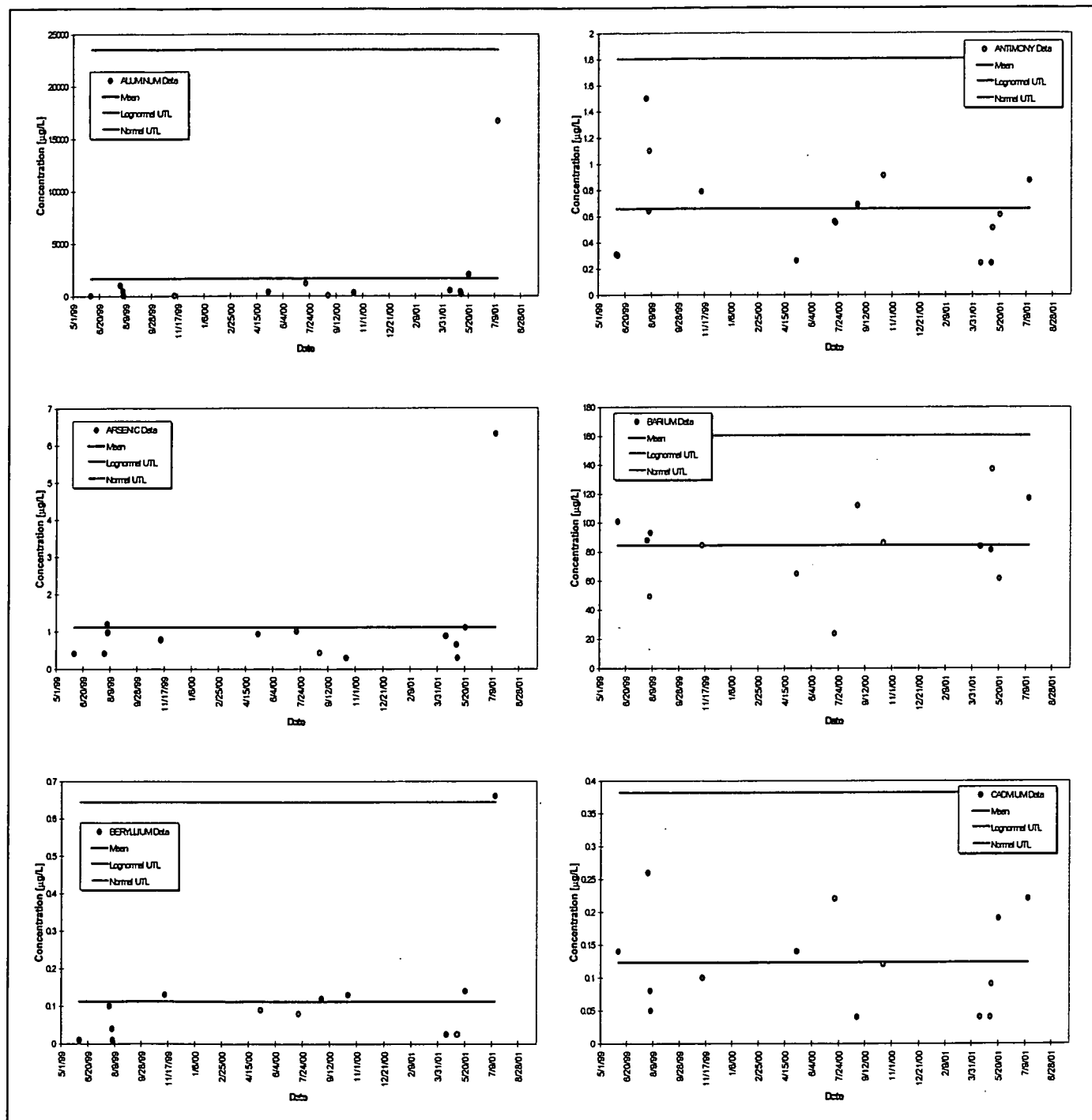


Figure 10-36. Total Metals UTL Plots for GS43: Aluminum through Cadmium.

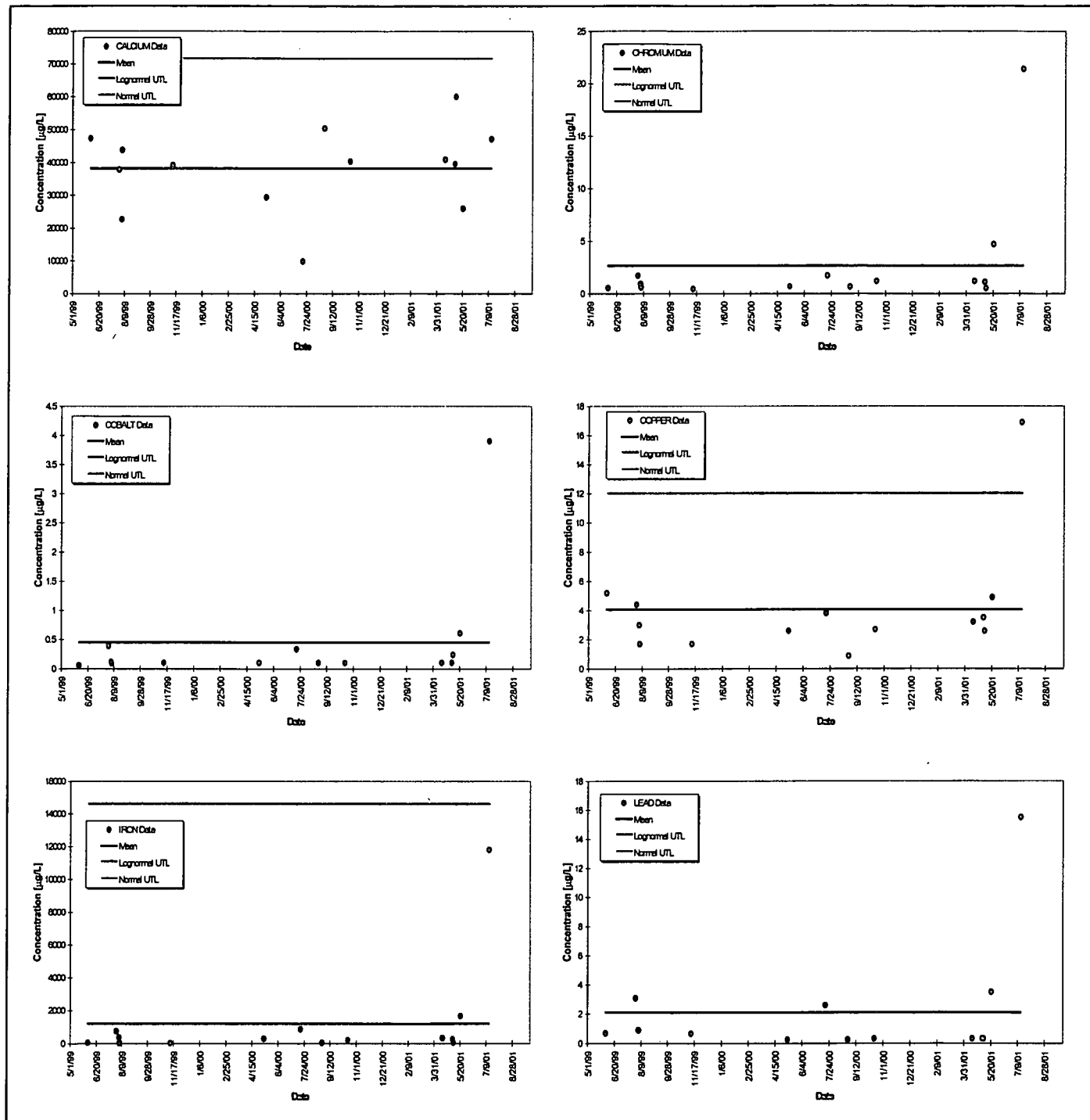


Figure 10-37. Total Metals UTL Plots for GS43: Calcium through Lead.

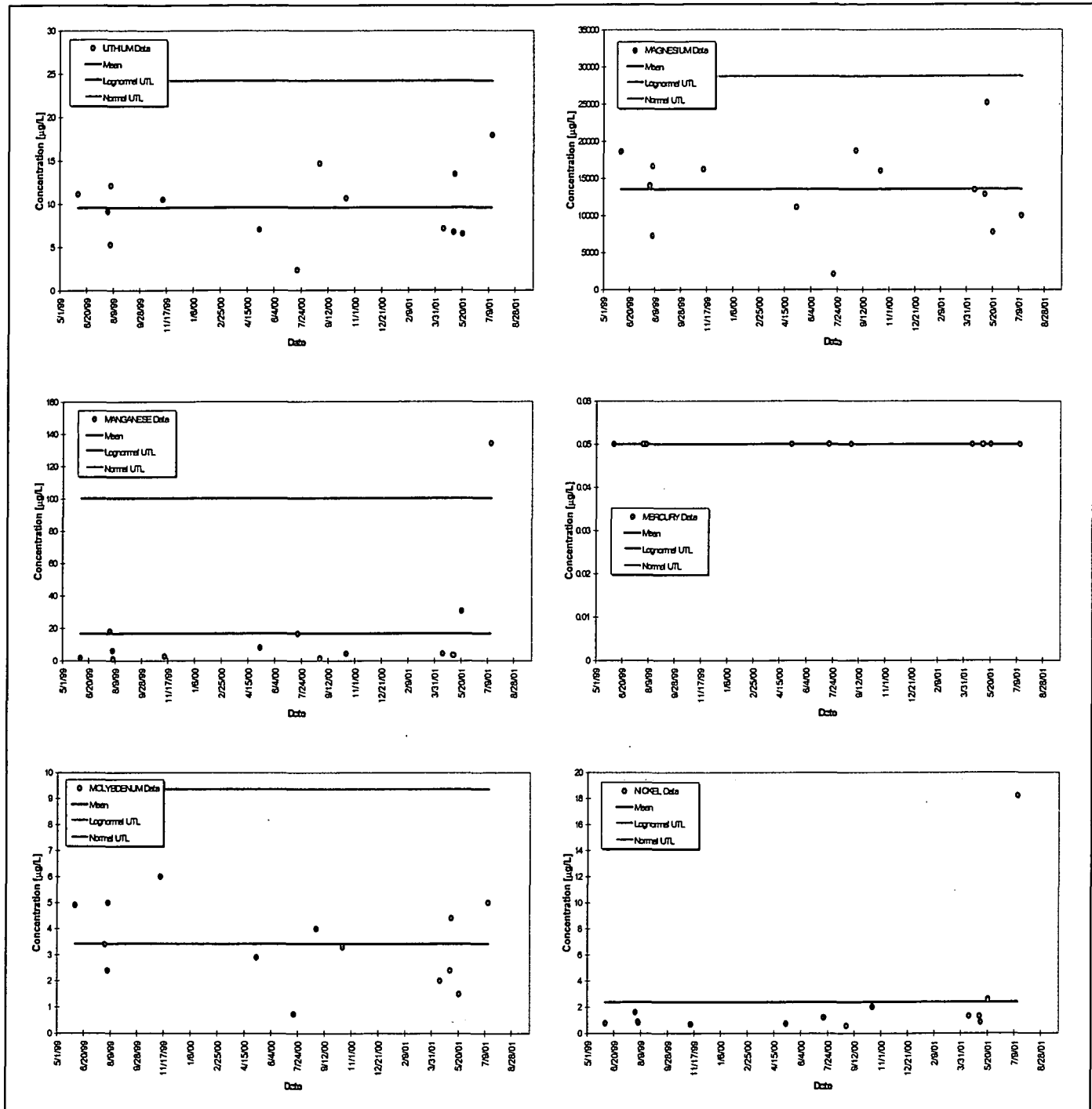


Figure 10-38. Total Metals UTL Plots for GS43: Lithium through Nickel.

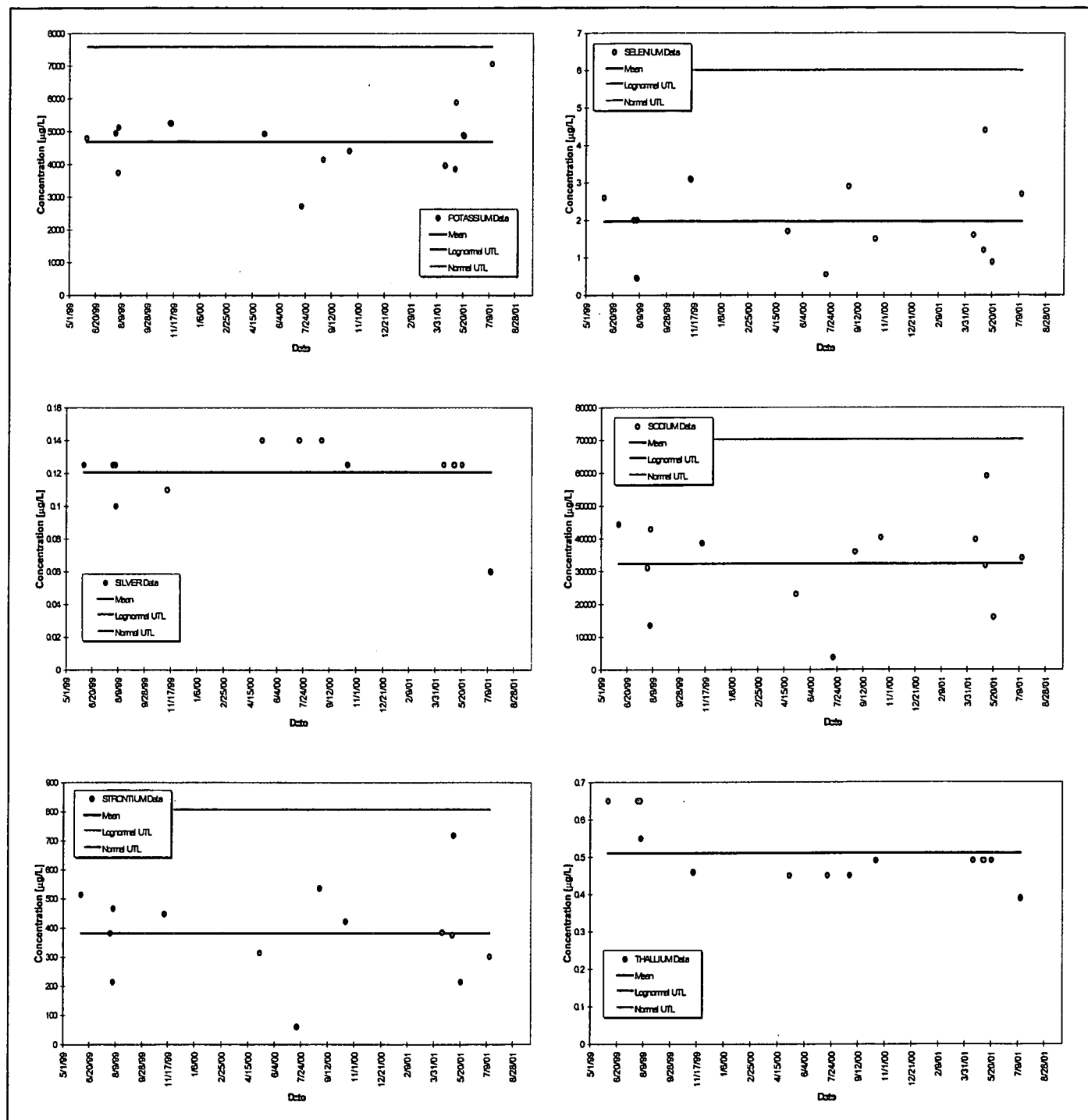


Figure 10-39. Total Metals UTL Plots for GS43: Potassium through Thallium.

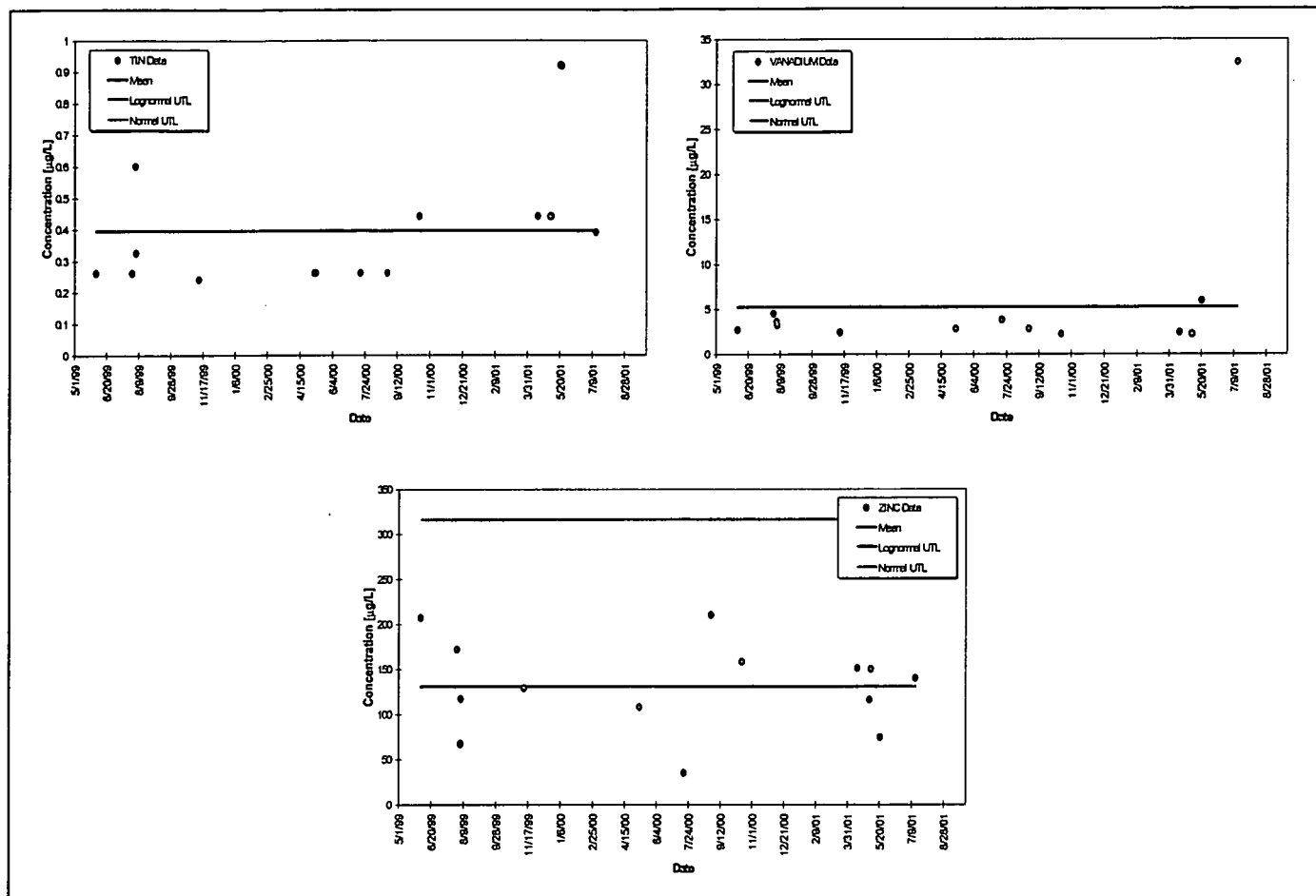


Figure 10-40. Total Metals UTL Plots for GS43: Tin through Zinc.

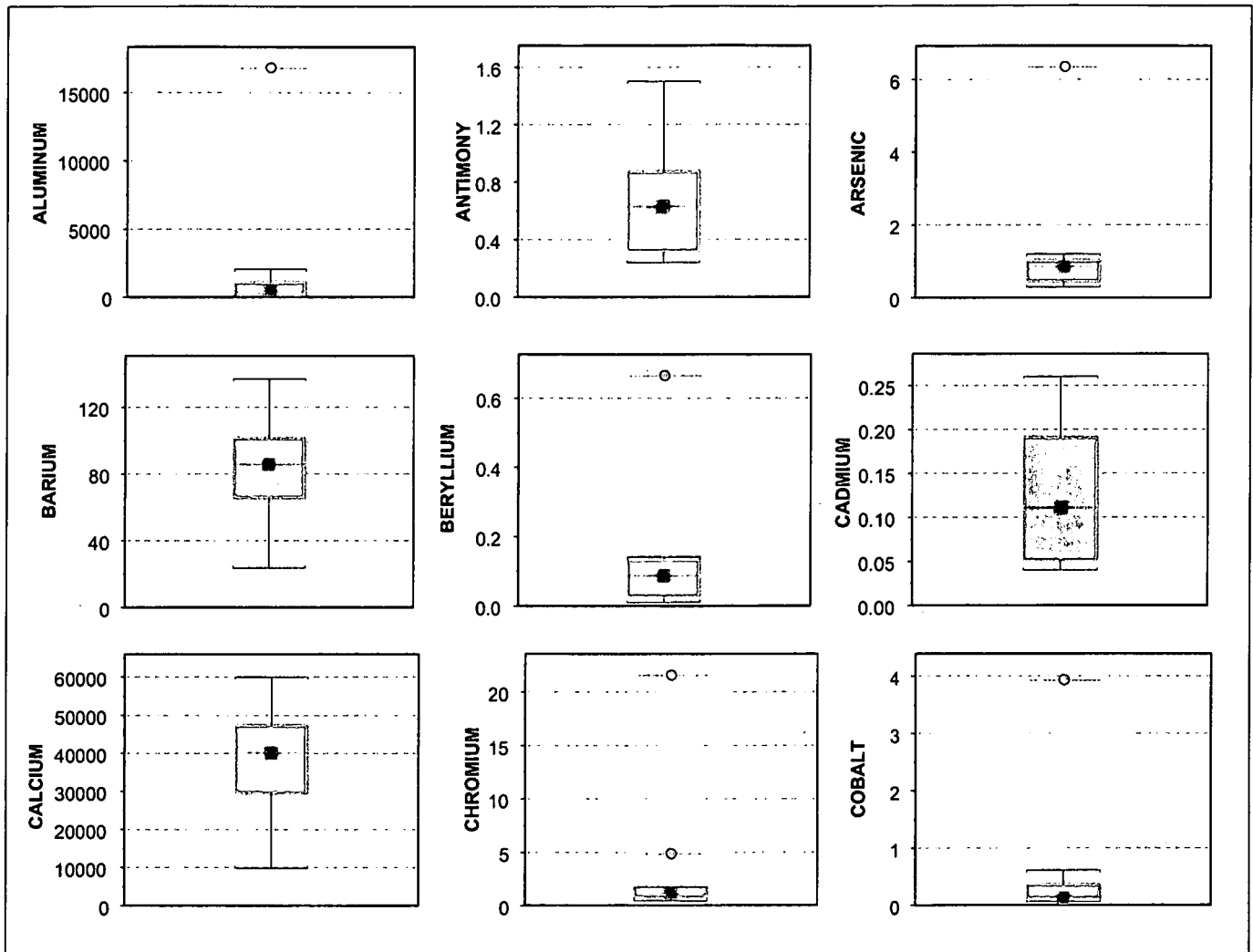


Figure 10-41. Total Metals Box Plots for GS43: Aluminum through Cobalt.

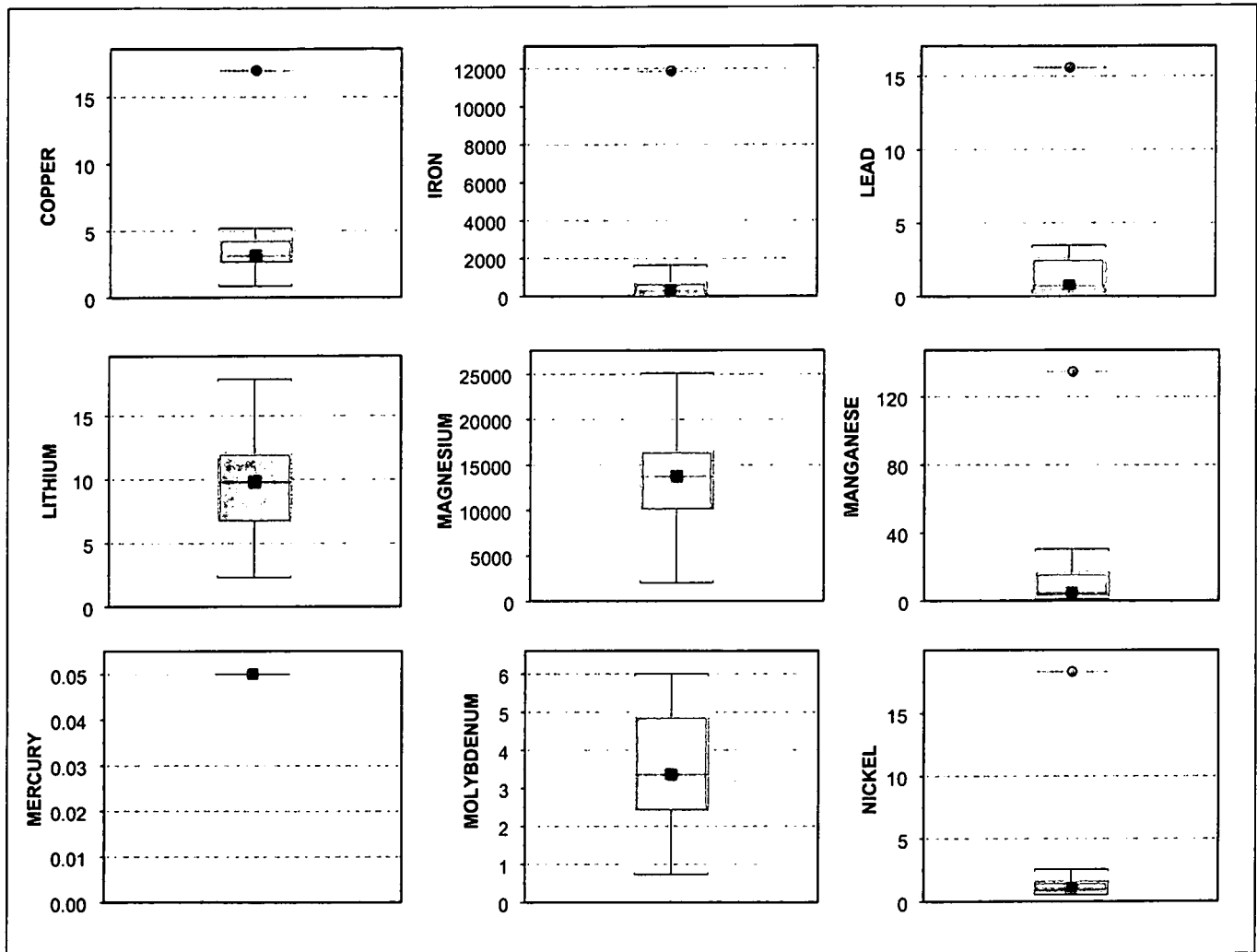


Figure 10-42. Total Metals Box Plots for GS43: Copper through Nickel.

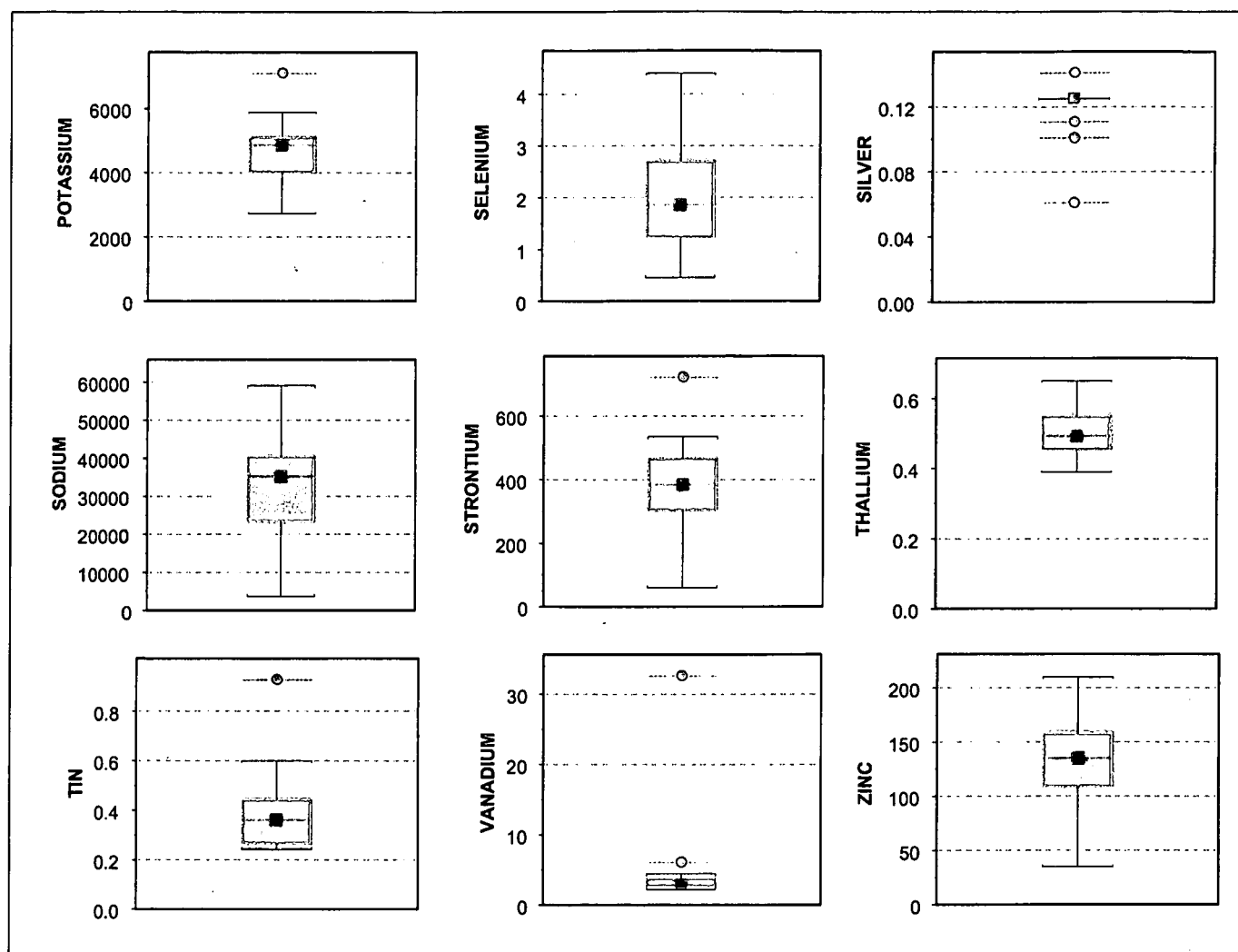


Figure 10-43. Total Metals Box Plots for GS43: Potassium through Zinc.

10.3.5 Building 771/774 D&D

Monitoring location SW120 was installed on 3/14/00 in support of the D&D of Buildings 771/774. This location also supports D&D activities for Building 776/777 and activities for the Solar Ponds. In support of the B776/777 D&D, tritium was added to the SW120 analyte suite in the end of WY00. Monitoring location GS44 was installed on 10/4/00 also in support of the D&D of Buildings 771/774. Figure 10-44 shows the drainage areas for SW120 and GS44.

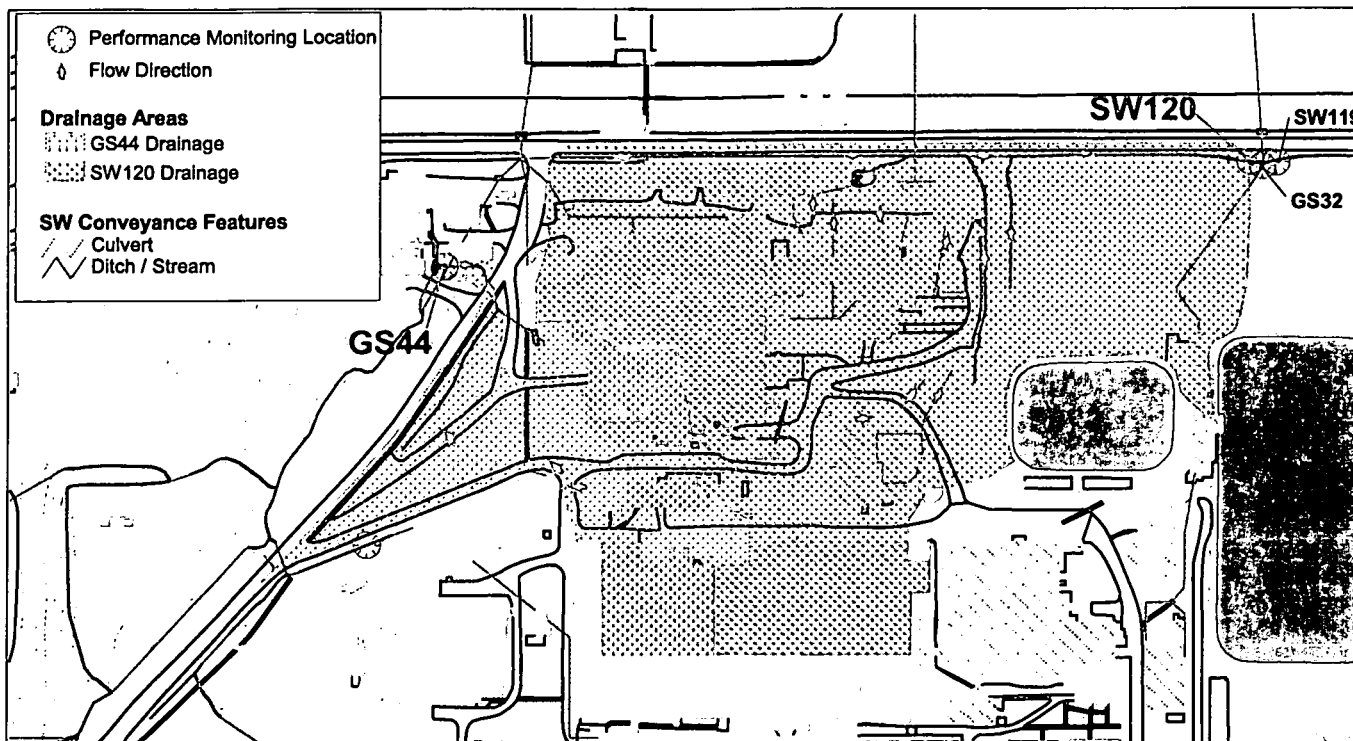


Figure 10-44. Performance Monitoring Drainage Areas for B771/774 D&D.

Monitoring data collected at SW120 have somewhat higher Pu and Am activities than for other automated monitoring locations (Table 10-11). Figure 10-45 and Figure 10-46 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu or Am results exceeded the calculated UTL.

Monitoring data collected at SW120 show moderate median total uranium activities (Table 10-11). Figure 10-48 shows that none of the total uranium results were greater than the calculated UTL. It should be noted that SW120 shows a median U-233,234/U-238 ratio significantly greater than 1 (Figure 10-51), indicating the possible existence of modified uranium. The ratios at this location are likely due to the proximity of SW120 to the Solar Ponds.

Monitoring data collected at SW120 show low median tritium activities (Table 10-11). Figure 10-47 shows the UTL plot for tritium. During WY99-01, no tritium results exceeded the calculated UTL.

The temporal variation of suspended solids activity is not given since only a single sample was collected within TSS hold time criteria.

Table 10-11. Summary Statistics for Radionuclide Results from SW120 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	23	NA	NA	NA
Pu-239,240	13	0.096	0.384	1.160	2.989 ^a
Am-241	13	0.050	0.150	0.336	1.143 ^a
Tritium	10	63	210	258	552 ^a / 364 ^b
U-233,234	13	1.260	4.308	5.940	13.0 ^a
U-235	13	0.028	0.189	0.258	
U-238	13	0.939	2.778	4.000	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

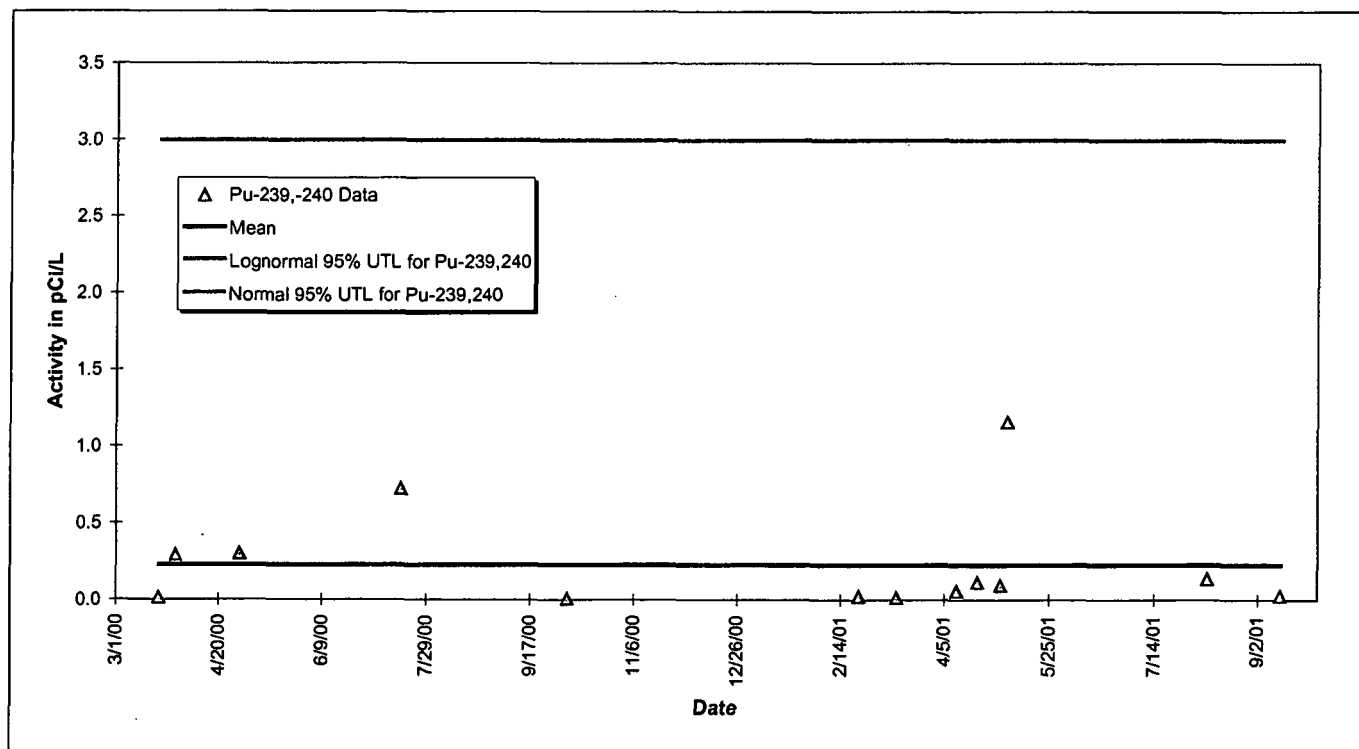


Figure 10-45. 95% UTL Plot for Pu-239,240 at SW120: WY99-01.

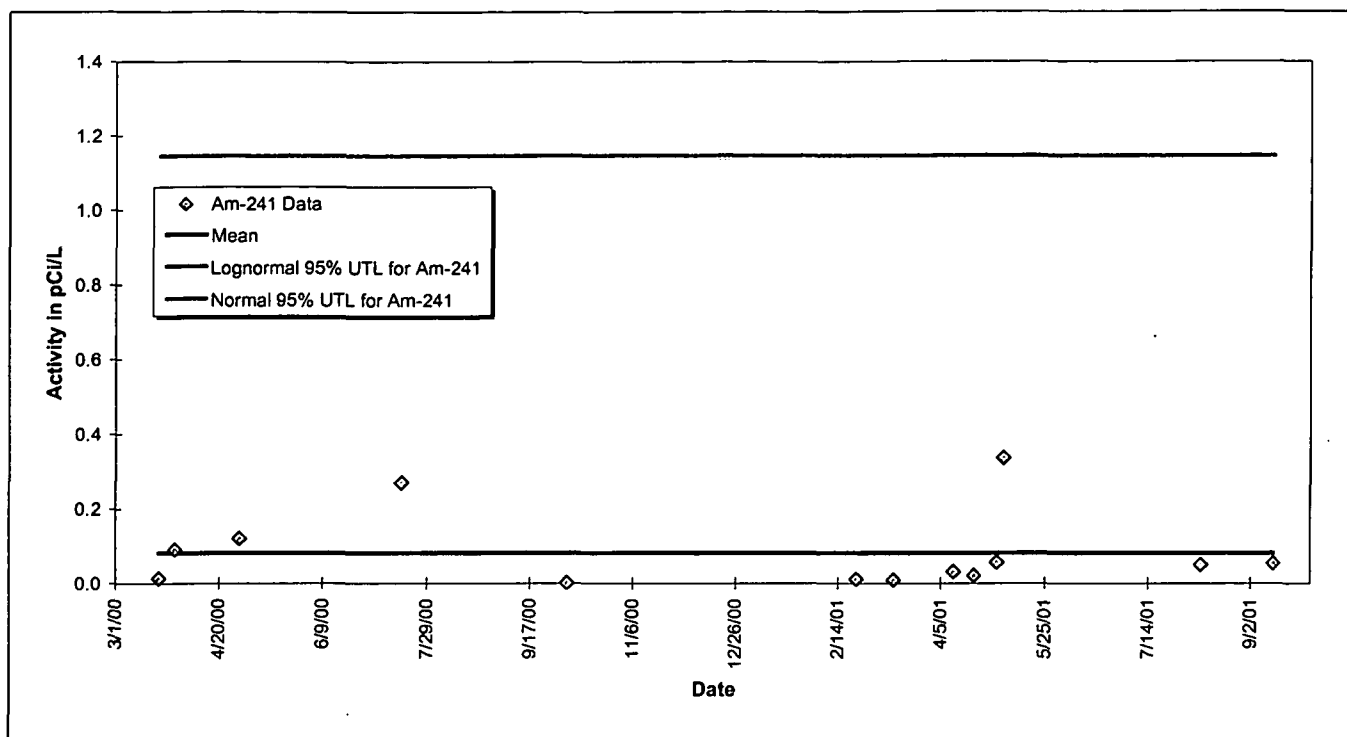


Figure 10-46. 95% UTL Plot for Am-241 at SW120: WY99-01.

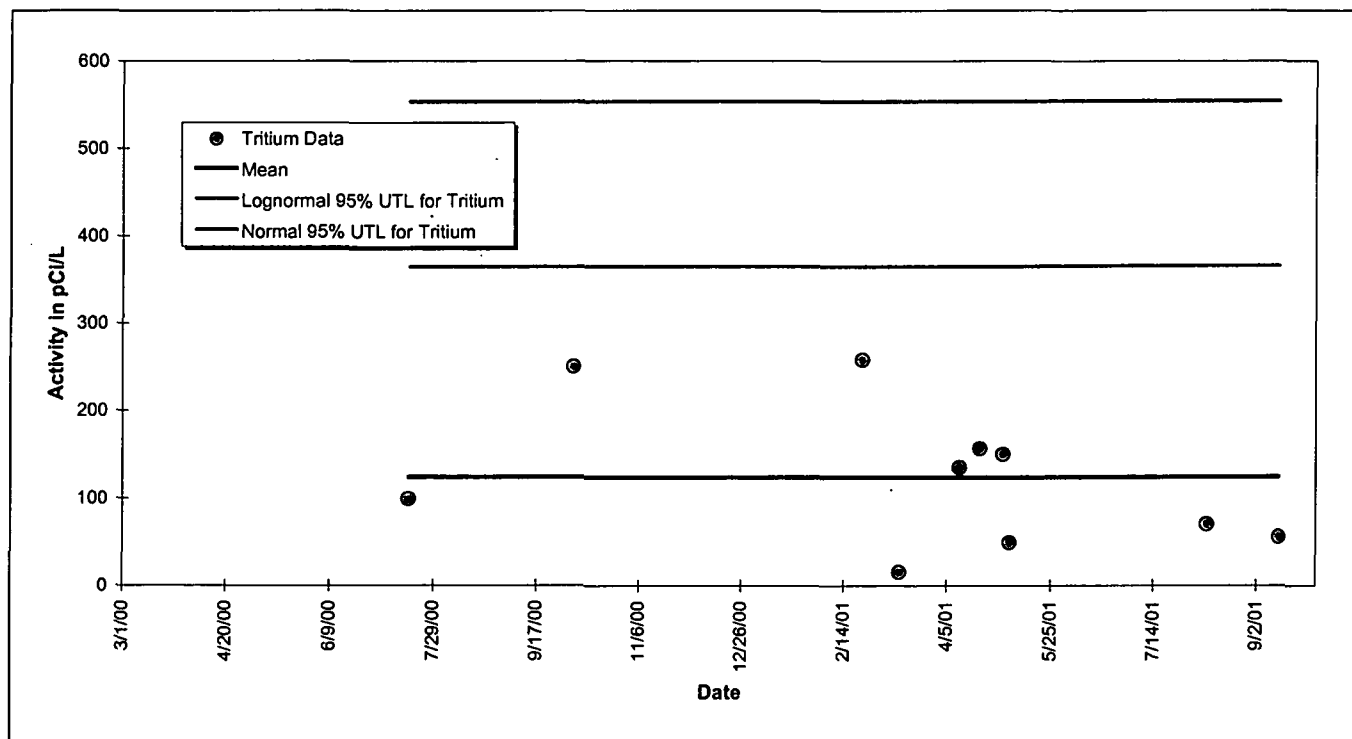


Figure 10-47. 95% UTL Plot for Tritium at SW120: WY99-01.

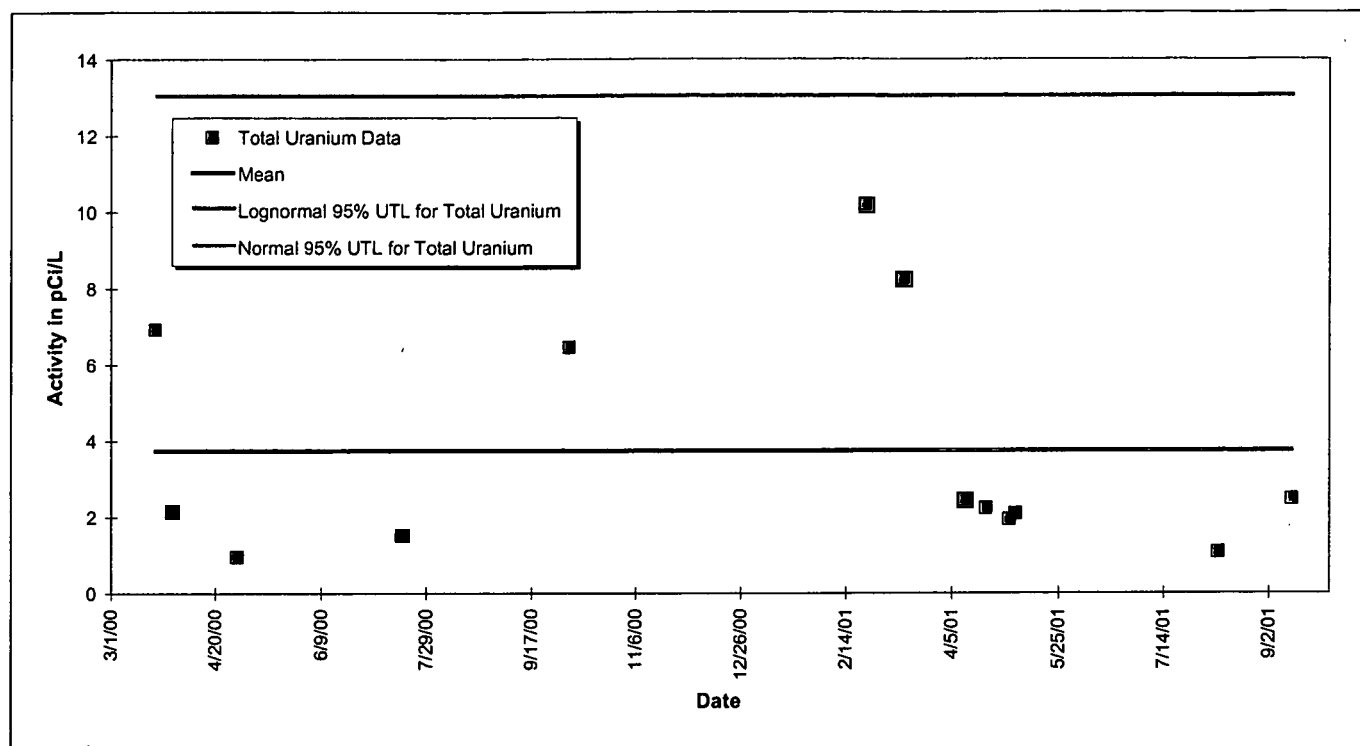


Figure 10-48. 95% UTL Plot for Total Uranium at SW120: WY99-01.

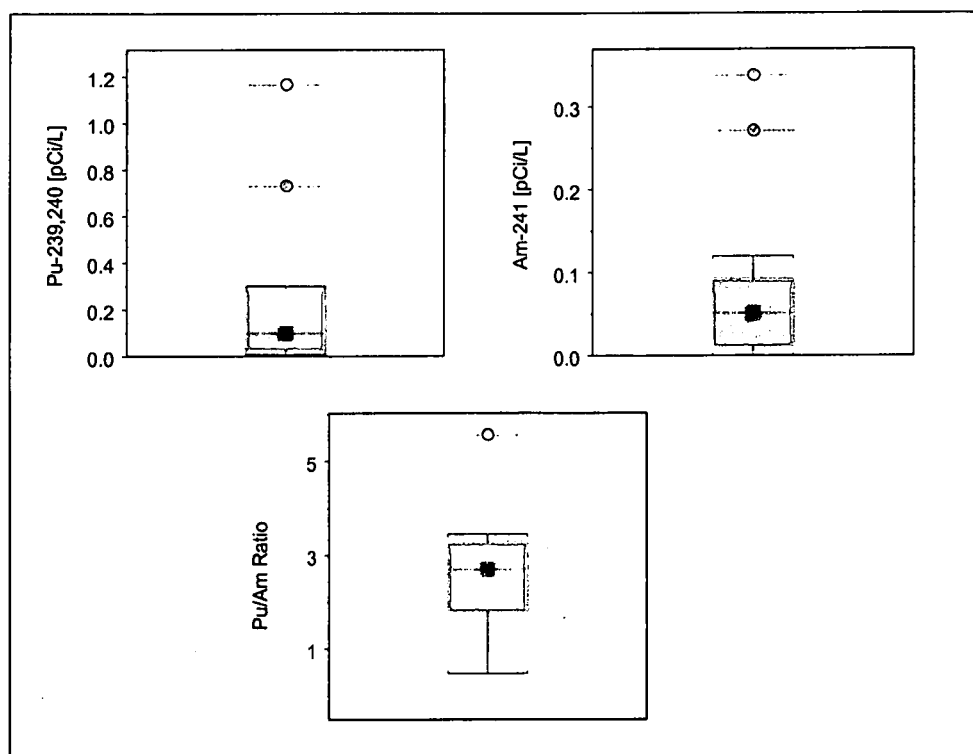


Figure 10-49. Pu and Am Box Plots for SW120: WY99-01.

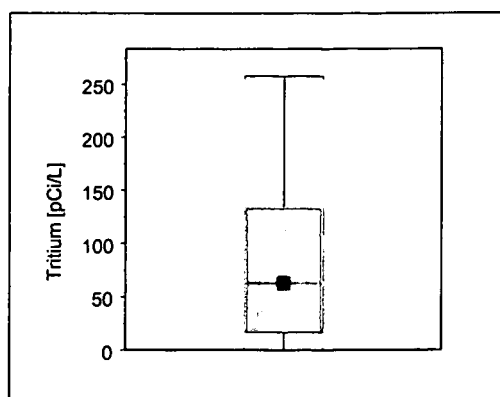


Figure 10-50. Tritium Box Plot for SW120: WY99-01.

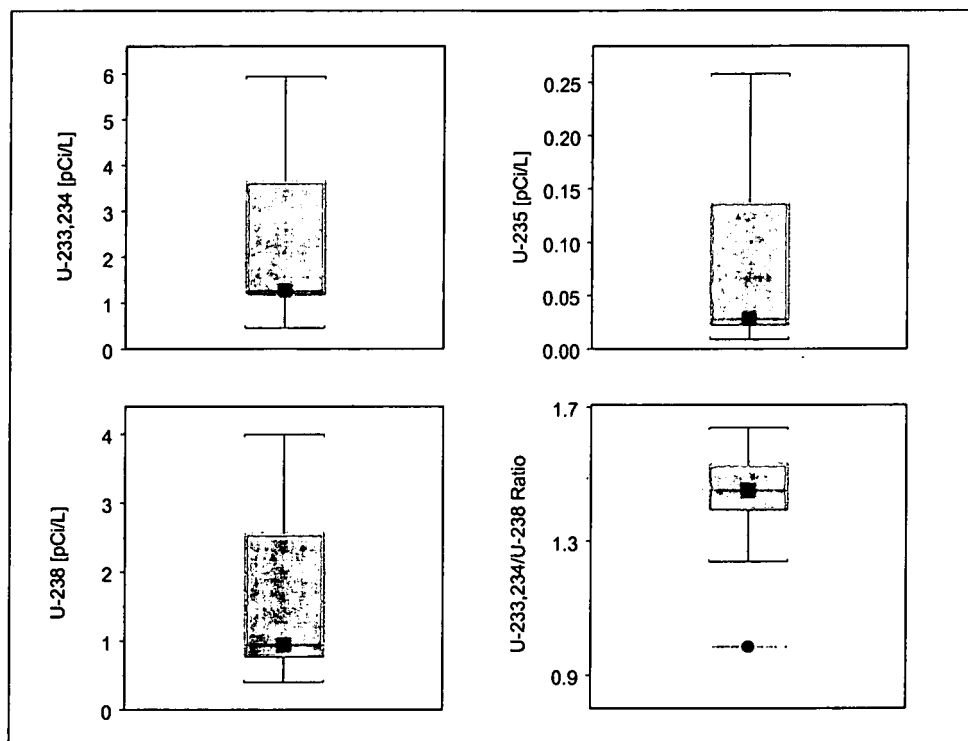


Figure 10-51. Uranium Box Plots for SW120: WY99-01.

Table 10-12 shows the total metals results for samples collected at SW120. Figure 10-52 through Figure 10-56 show the UTL plots for the metals. For the metals with a determined distribution, only Ni showed a value that exceeded the calculated UTL. However, this result was only 0.01 $\mu\text{g/L}$ above the UTL.

Data for metals Cd, Li, Hg, Tl, and Sn had undetermined distributions. For Cd and Li, the boxplots show no 'suspect' values. For Hg, Tl, and Sn nearly all the data were 'undetected'. For Tl, the 'suspect' results were only slightly above the detection limit. For Hg and Sn, the causes of the 'suspect' results are unknown. However, these values were unique events and did not persist.

Table 10-12. Summary Statistics for Metals Results from SW120 in WY99-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	13	0.0%	2300	6876	9750	83780 ^a
ANTIMONY	13	0.0%	1.40	2.58	3.10	3.71 ^a
ARSENIC	13	15.4%	1.60	5.12	6.20	11.3 ^a
BARIUM	13	0.0%	104	254	331	392 ^a
BERYLLIUM	13	7.7%	0.19	0.33	0.43	0.70 ^a
CADMIUM	13	38.5%	0.14	0.33	0.38	^c
CALCIUM	13	0.0%	46400	117800	159000	220811 ^a
CHROMIUM	13	0.0%	3.00	6.92	10.6	22.8 ^a
COBALT	13	7.7%	0.55	1.61	2.70	3.07 ^a
COPPER	13	0.0%	8.40	16.6	20.5	26.2 ^a
IRON	13	0.0%	1620	4674	8530	47105 ^a
LEAD	13	23.1%	1.80	6.17	8.70	21.8 ^a
LITHIUM	13	0.0%	20.3	59.8	63.0	^c
MAGNESIUM	13	0.0%	9400	28660	32100	46105 ^a
MANGANESE	13	0.0%	44.1	109	151	308 ^a
MERCURY	13	84.6%	0.05	0.07	5.50	^c
MOLYBDENUM	13	0.0%	1.20	1.52	2.10	2.14 ^a
NICKEL	13	0.0%	2.90	5.29	8.90	8.89 ^a
POTASSIUM	13	0.0%	12100	12780	18800	19827 ^a
SELENIUM	13	53.8%	0.60	1.34	1.60	2.06 ^a
SILVER	13	100.0%	0.11	0.13	0.14	0.19 ^a
SODIUM	13	0.0%	141000	386800	601000	915520 ^a
STRONTIUM	13	0.0%	279	797	968	1424 ^a
THALLIUM	13	92.3%	0.46	0.71	1.20	^c
TIN	13	92.3%	0.41	0.50	1.60	^c
VANADIUM	13	0.0%	4.90	16.6	23.4	81.4 ^a
ZINC	13	0.0%	53.3	84.9	112	141 ^b

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

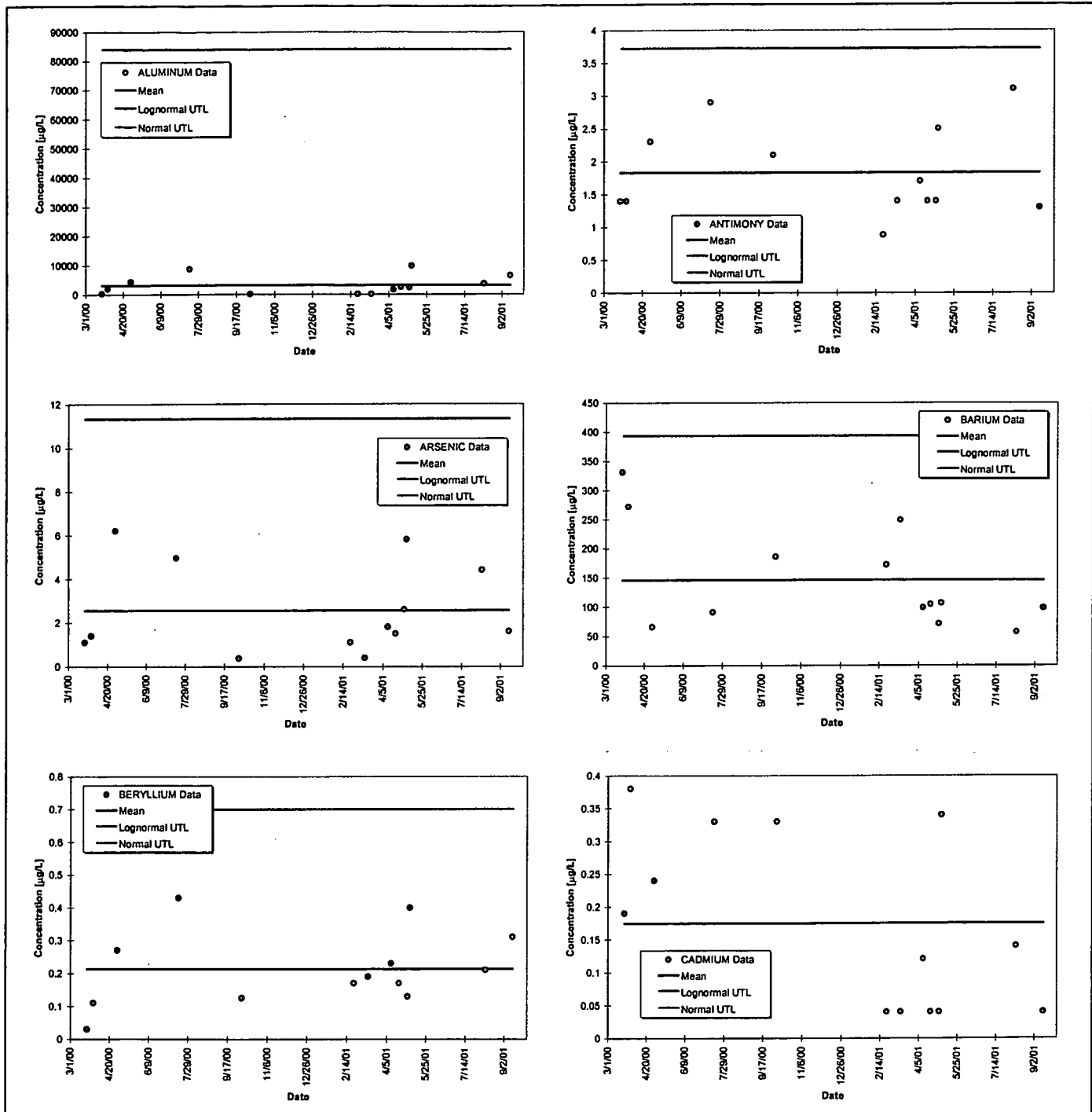


Figure 10-52. Total Metals UTL Plots for SW120: Aluminum through Cadmium.

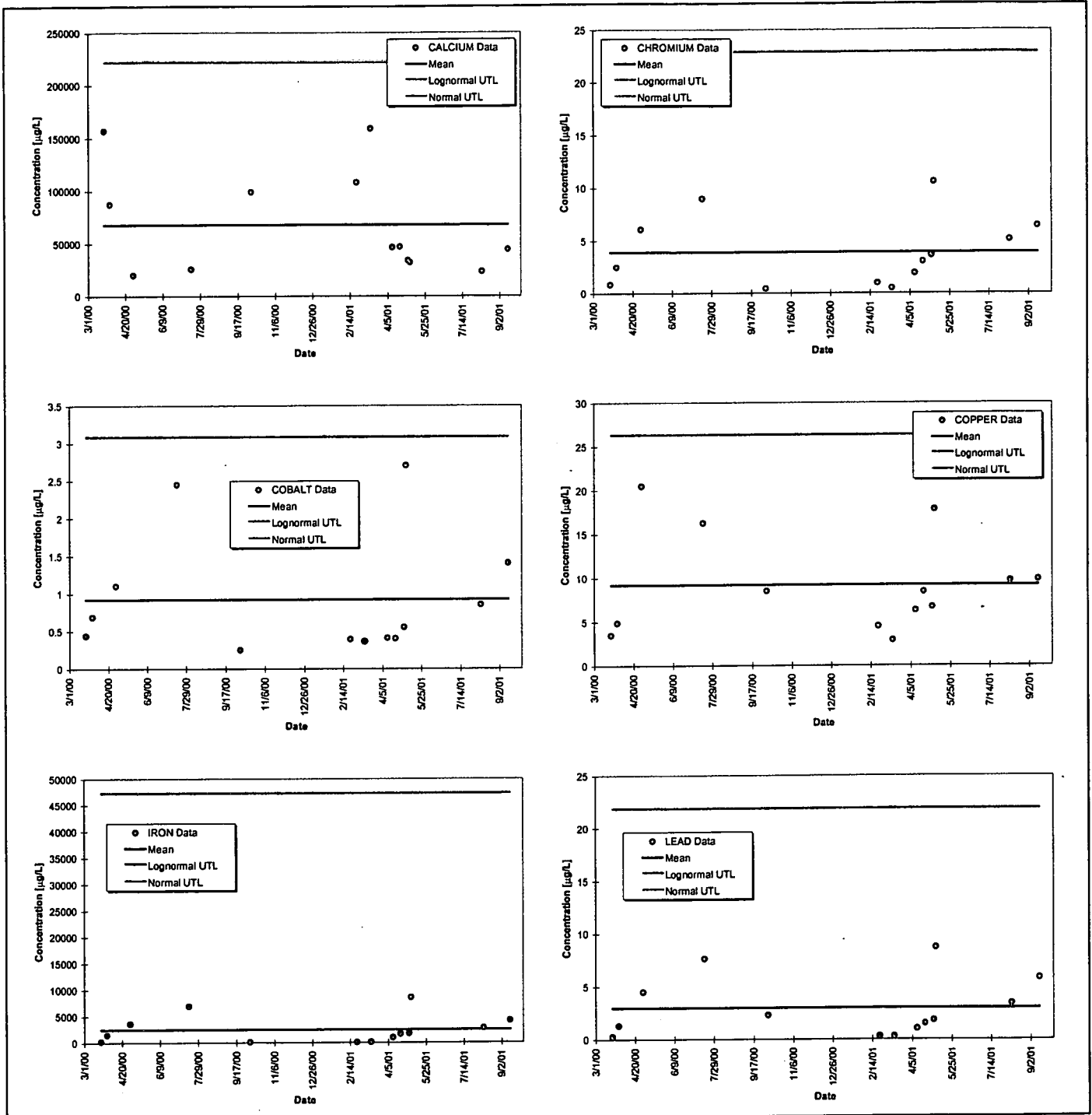


Figure 10-53. Total Metals UTL Plots for SW120: Calcium through Lead.

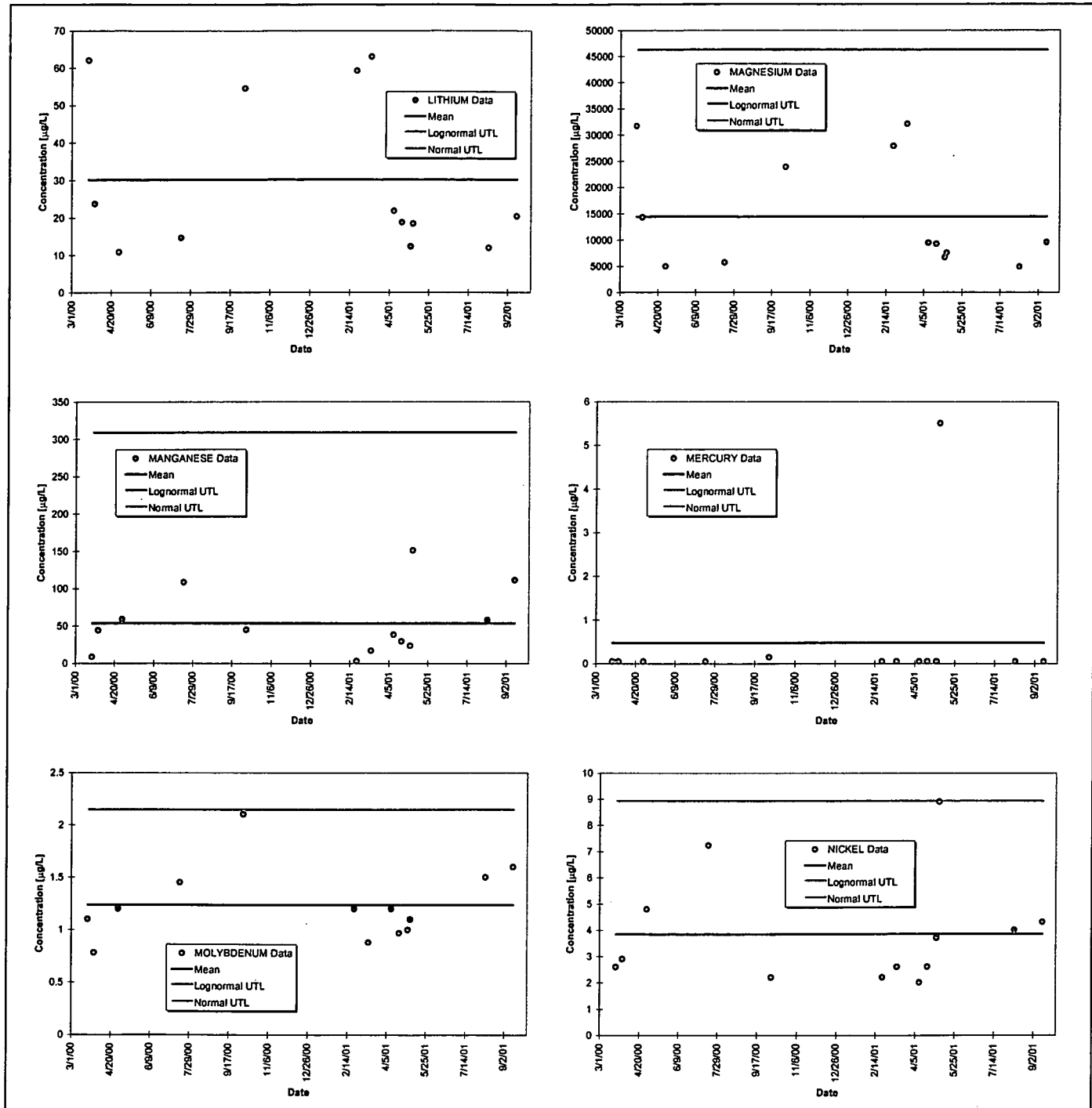


Figure 10-54. Total Metals UTL Plots for SW120: Lithium through Nickel.

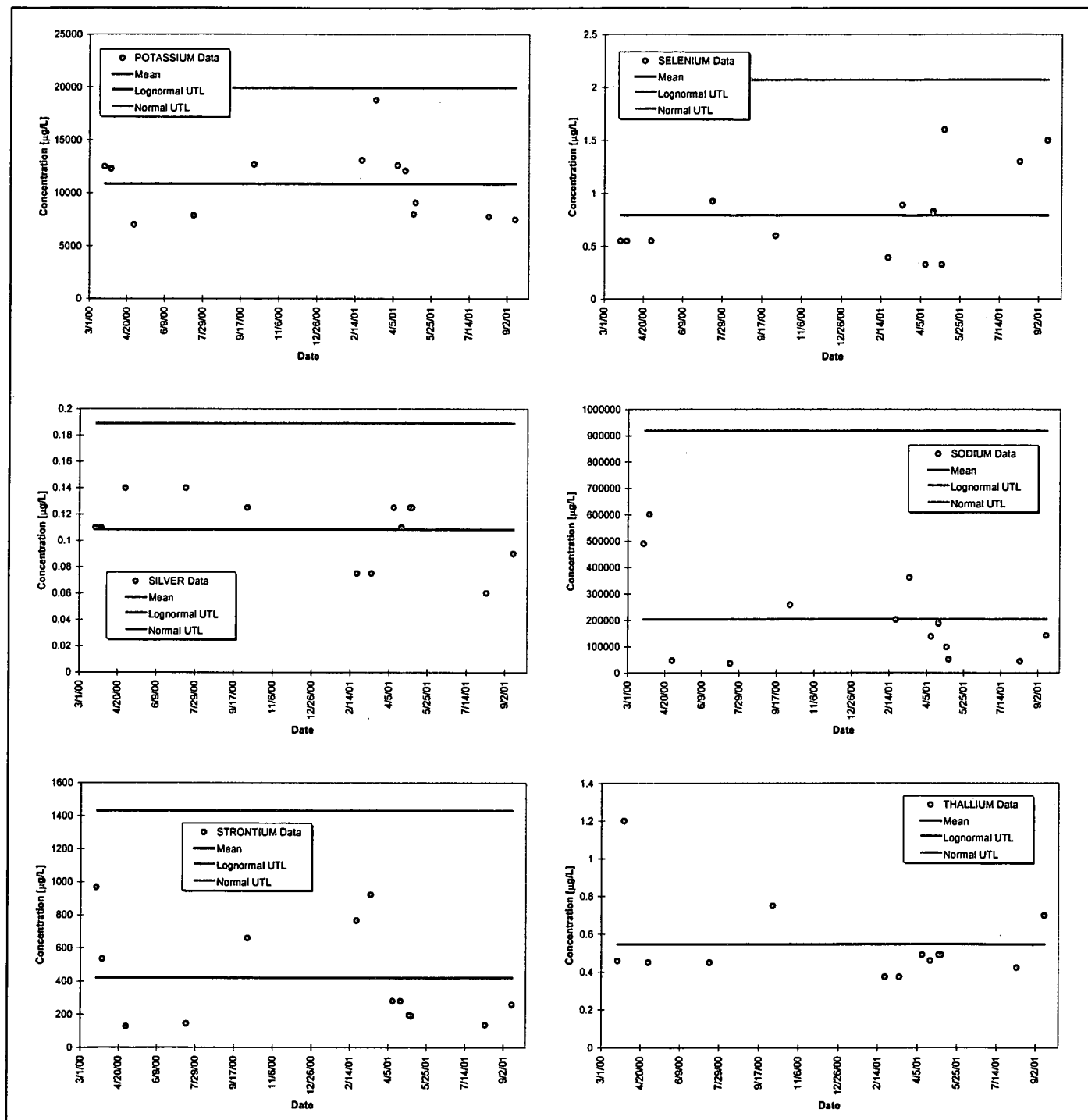


Figure 10-55. Total Metals UTL Plots for SW120: Potassium through Thallium.

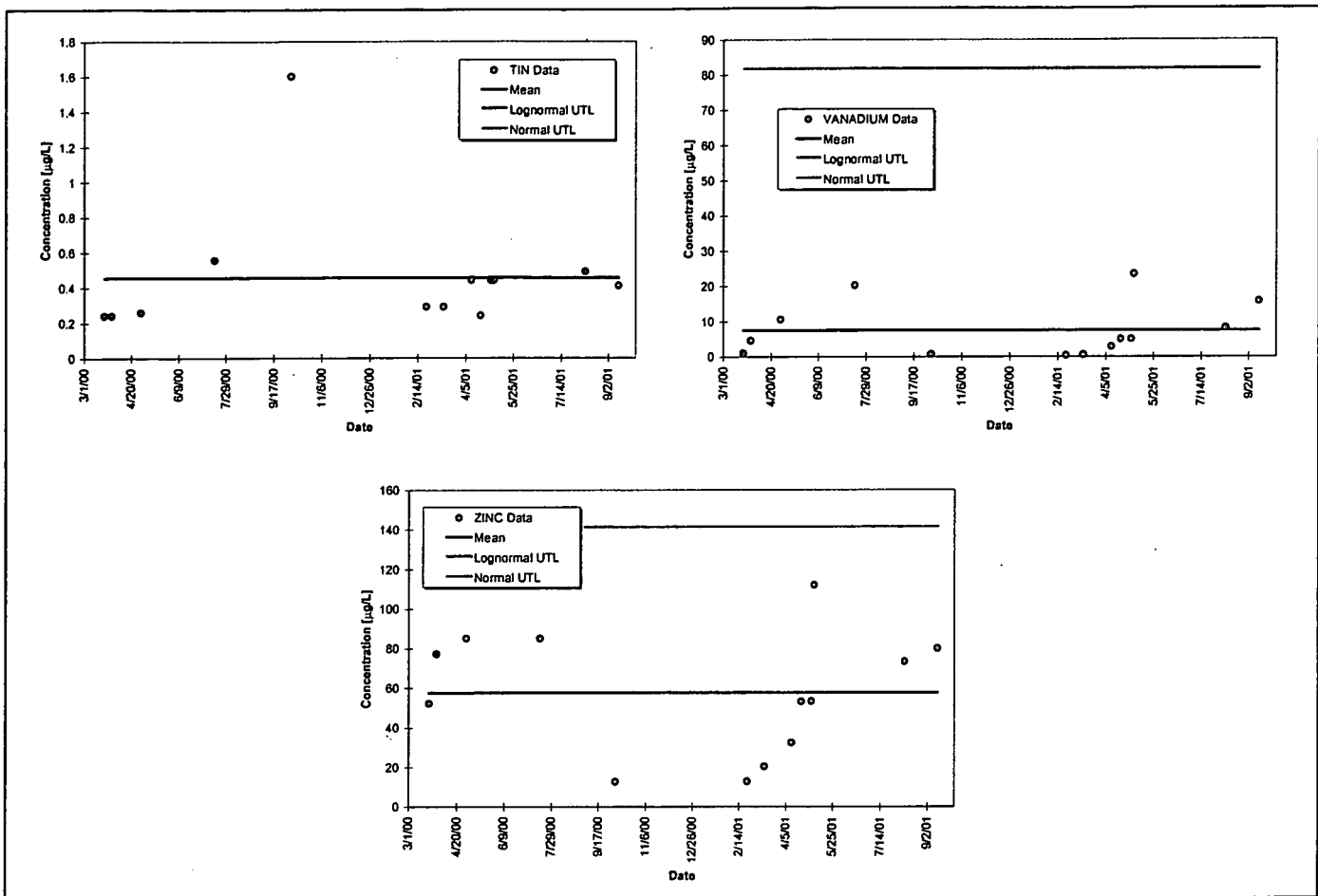


Figure 10-56. Total Metals UTL Plots for SW120: Tin through Zinc.

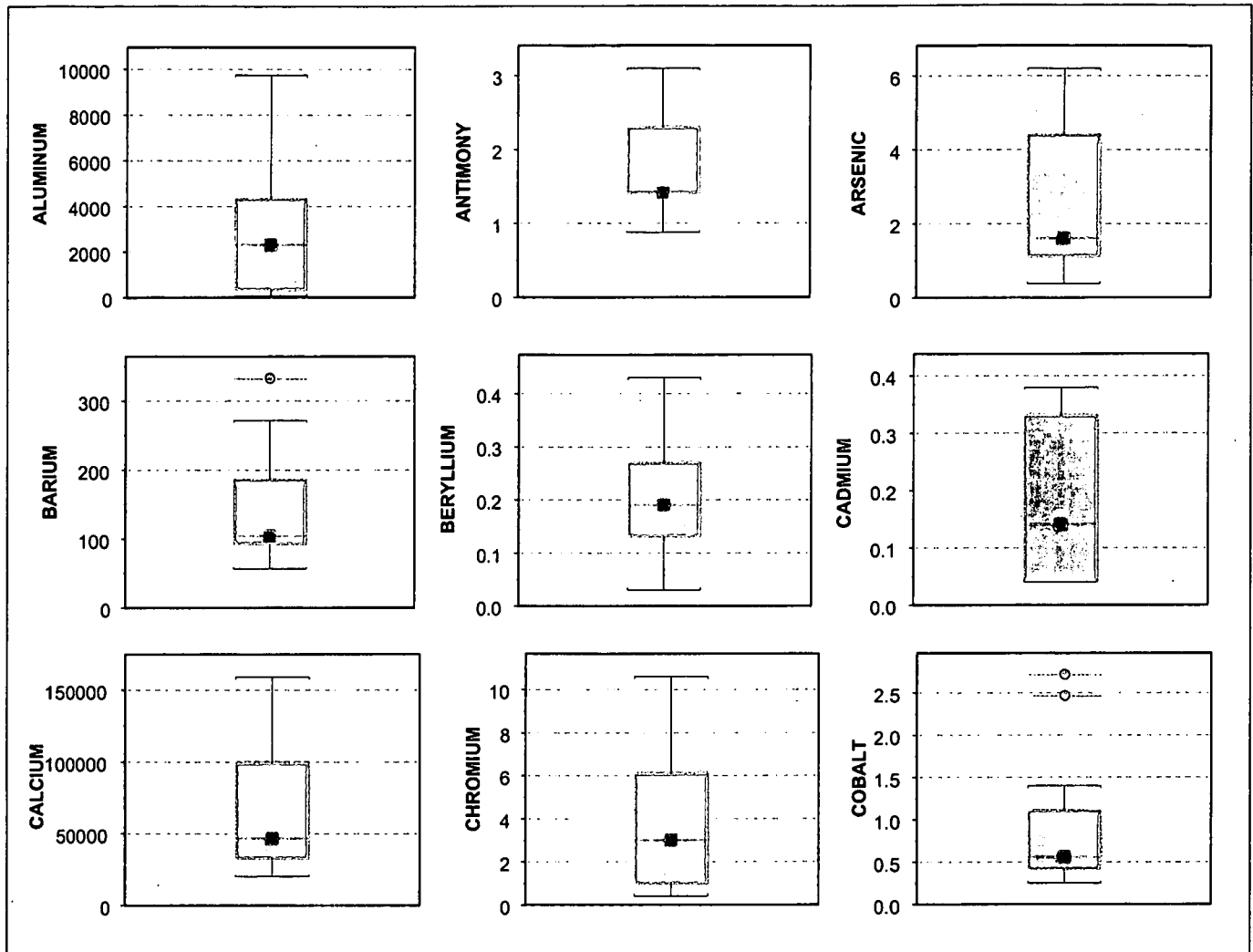


Figure 10-57. Total Metals Box Plots for SW120: Aluminum through Cobalt.

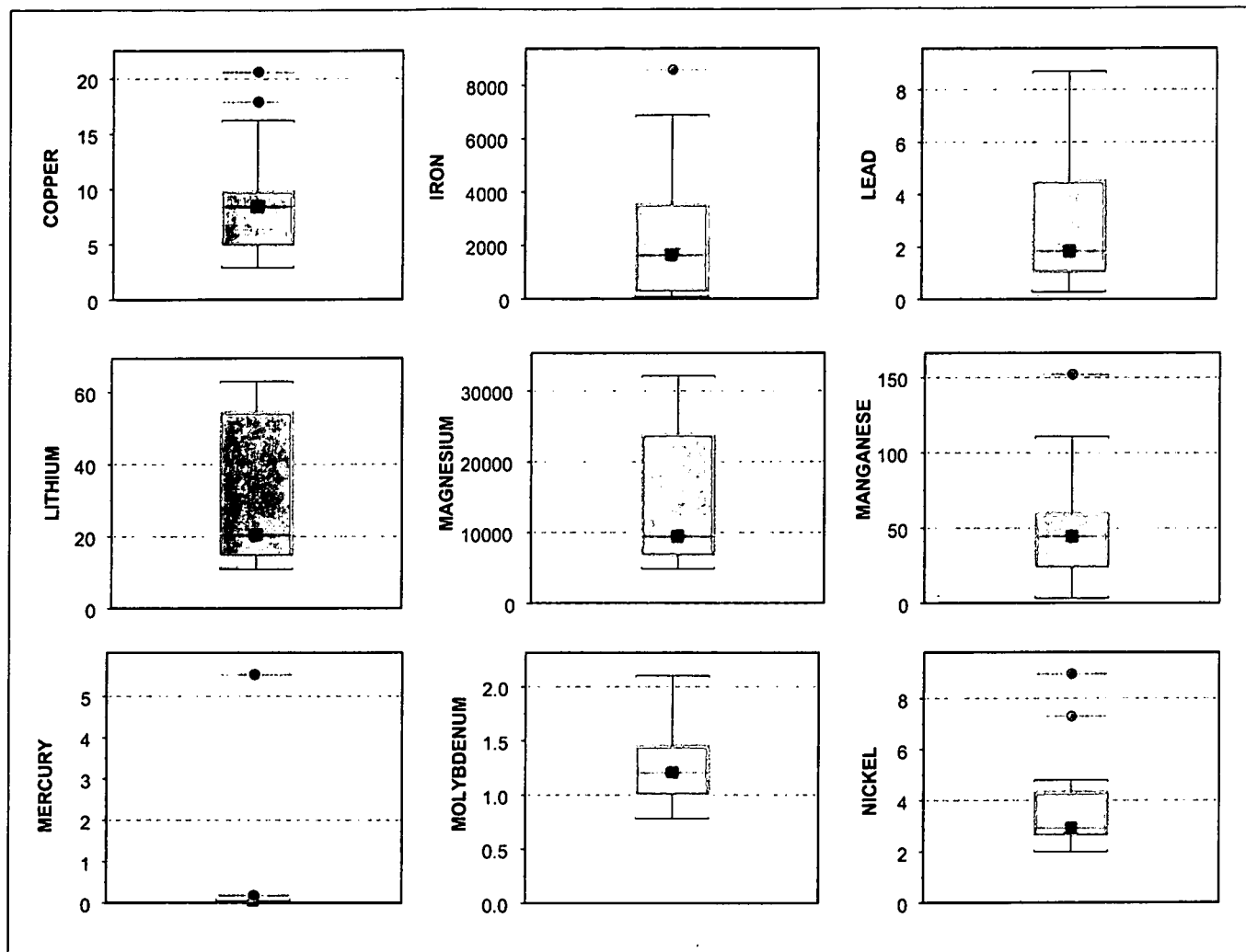


Figure 10-58. Total Metals Box Plots for SW120: Copper through Nickel.

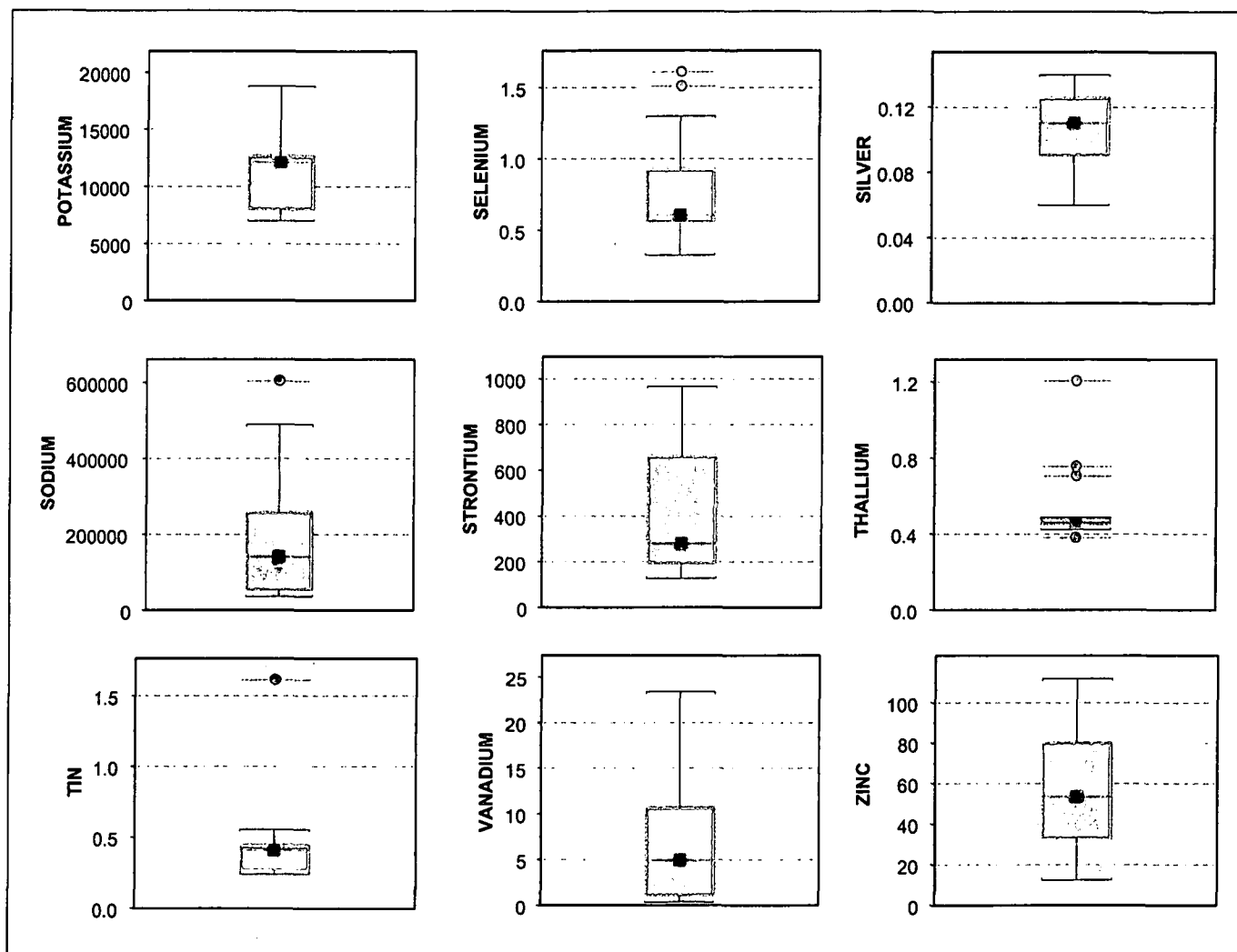


Figure 10-59. Total Metals Box Plots for SW120: Potassium through Zinc.

Monitoring data collected at GS44 show low Pu and Am activities (Table 10-13). Figure 10-60 and Figure 10-61 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu or Am results exceeded the calculated UTL.

Monitoring data collected at GS44 show moderate median total uranium activities (Table 10-13). Figure 10-63 shows that none of the total uranium results were greater than the calculated UTLs. It should be noted that SW120 shows a median U-233,234/U-238 ratio somewhat greater than 1 (Figure 10-66), indicating the possible existence of modified uranium.

Monitoring data collected at GS44 show a median tritium activity of 0.0 pCi/L (Table 10-13). Figure 10-62 shows the UTL plot for tritium. During WY99-01, no tritium results exceeded the calculated UTL.

The temporal variation of suspended solids activity is not given since only a single sample was collected within TSS hold time criteria. No Pu/Am ratio boxplot is given due to the small number (3) of values that met the MDA criteria.

Table 10-13. Summary Statistics for Radionuclide Results from GS44 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	53	NA	NA	NA
Pu-239,240	14	0.015	0.033	0.055	0.086 ^a
Am-241	14	0.014	0.027	0.064	0.093 ^a
Tritium	14	0	36	100	259 ^b
U-233,234	13	1.320	2.578	2.830	8.39 ^a / 6.86 ^b
U-235	13	0.038	0.114	0.139	
U-238	13	1.100	1.996	2.110	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

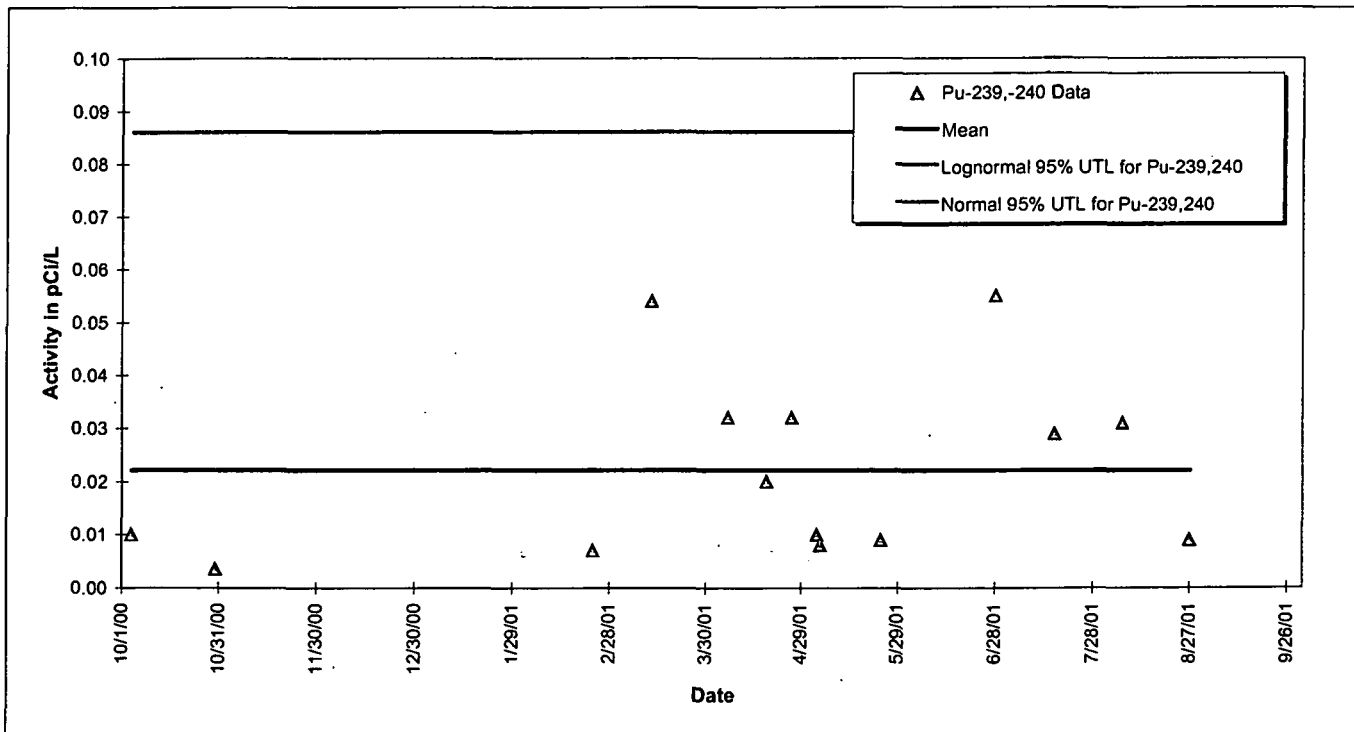


Figure 10-60. 95% UTL Plot for Pu-239,240 at GS44: WY99-01.

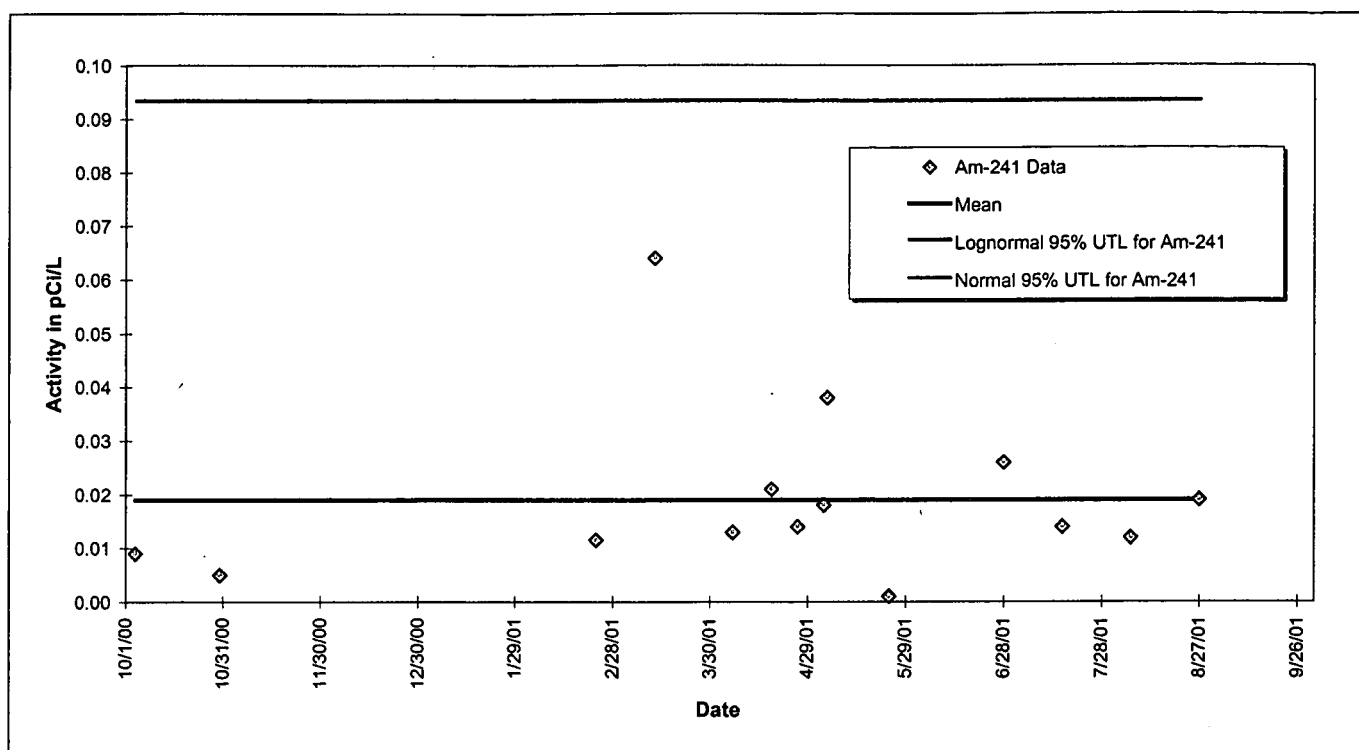


Figure 10-61. 95% UTL Plot for Am-241 at GS44: WY99-01.

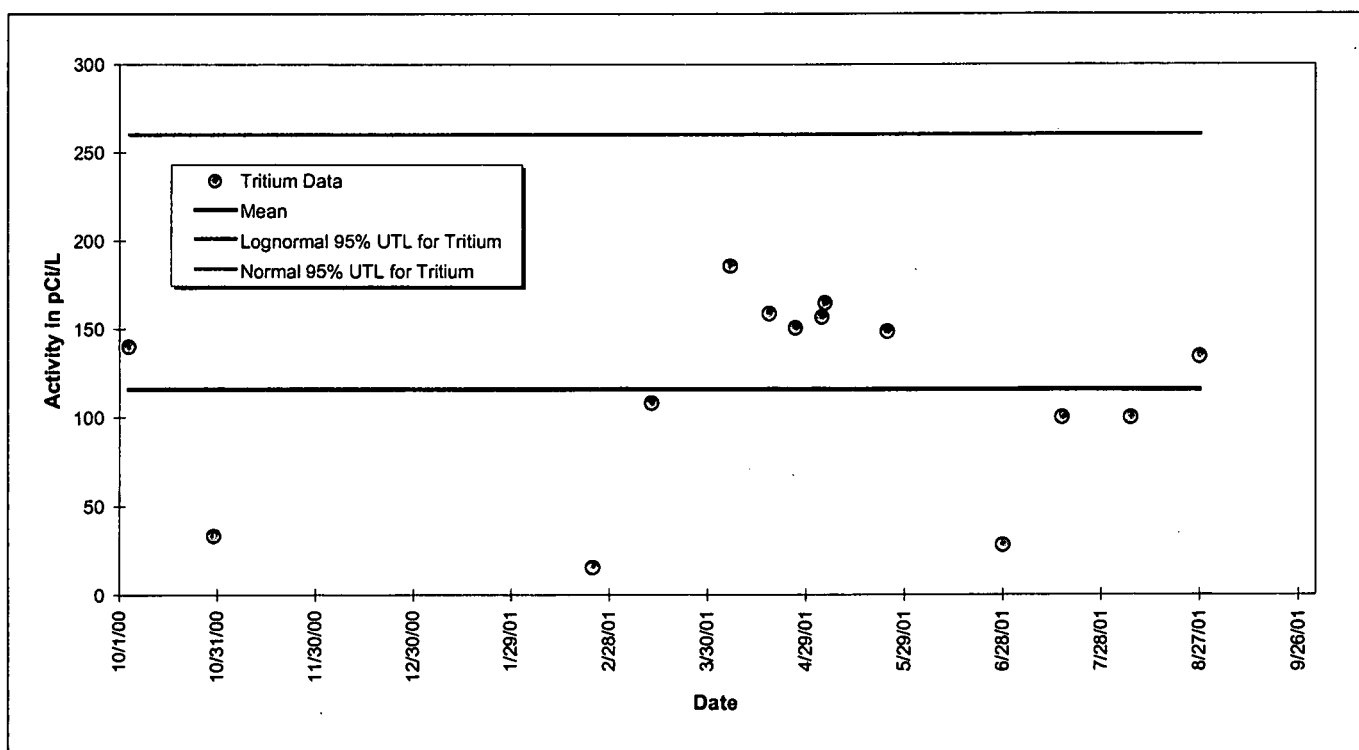


Figure 10-62. 95% UTL Plot for Tritium at GS44: WY99-01.

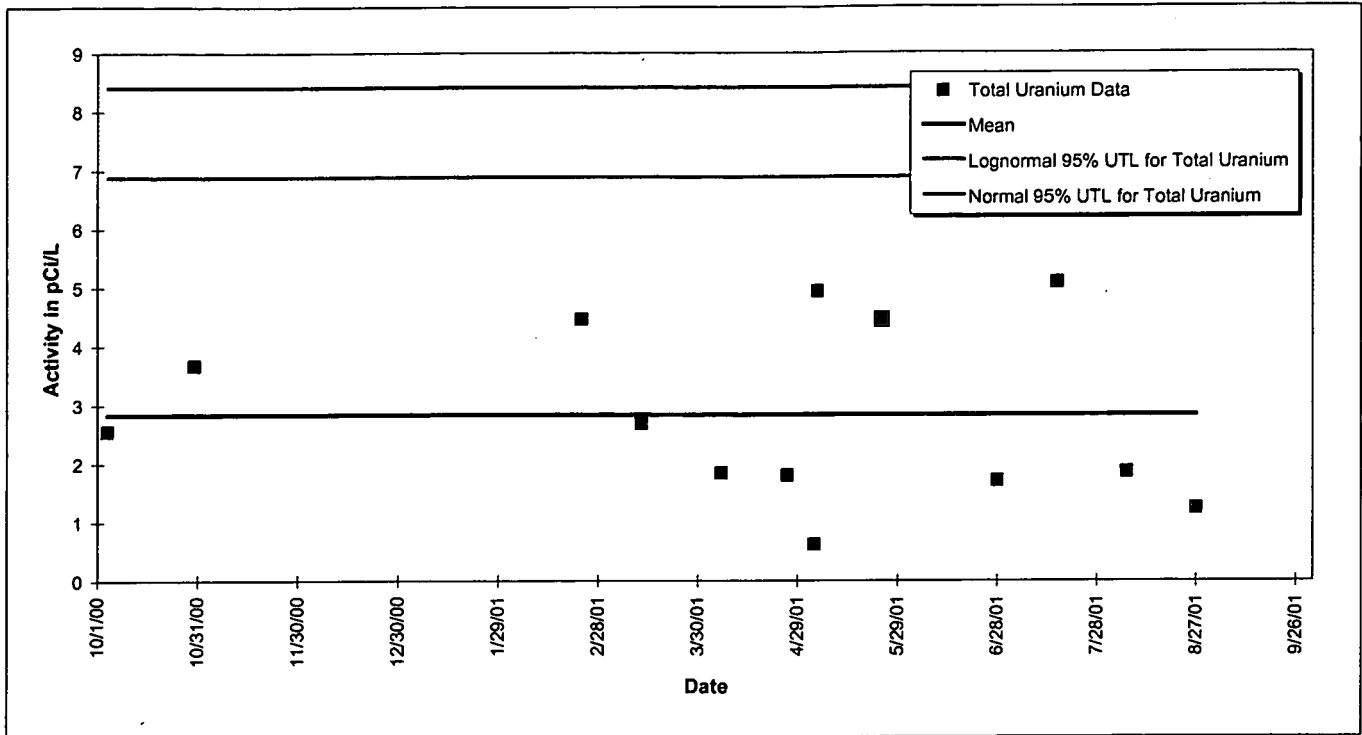


Figure 10-63. 95% UTL Plot for Total Uranium at GS44: WY99-01.

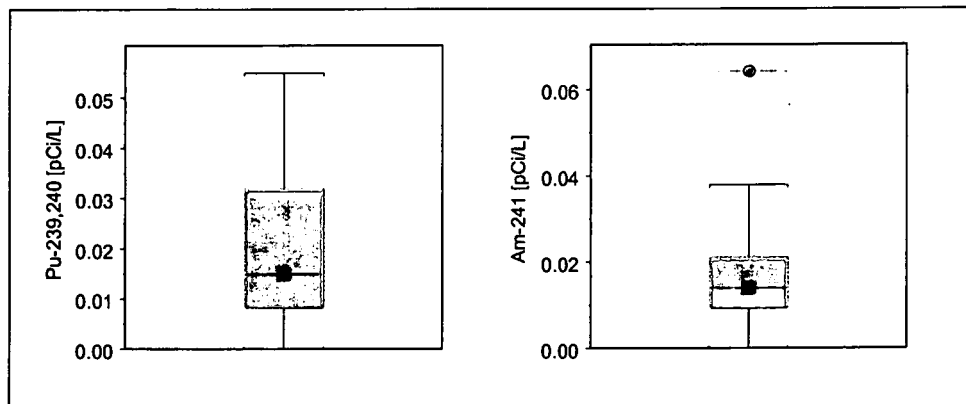


Figure 10-64. Pu and Am Box Plots for GS44: WY99-01.

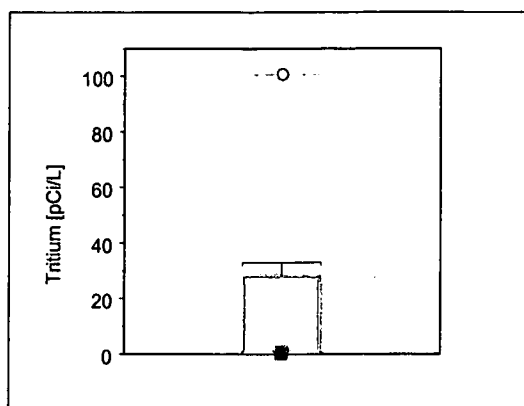


Figure 10-65. Tritium Box Plot for GS44: WY99-01.

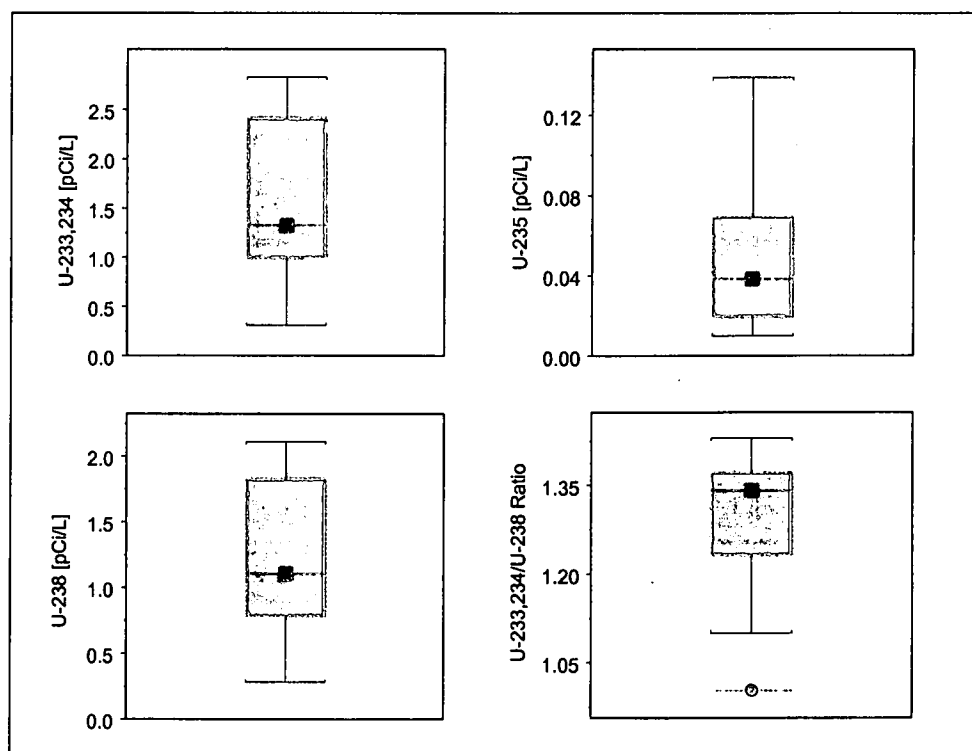


Figure 10-66. Uranium Box Plots for GS44: WY99-01.

Table 10-14 shows the total metals results for samples collected at GS44. Figure 10-67 through Figure 10-71 show the UTL plots for the metals. For the metals with a determined distribution, only Na and Zn showed values that exceeded the calculated UTL. For Na, the elevated sample was collected for the period 10/30/00 to 2/23/01, and the Na is likely a result of road and walkway deicing activities. The high Zn value is also from the same sample, and although the cause is unknown, subsequent sampling showed lower Zn values.

Data for metals Cd, Pb, Mn, Hg, Ag, Tl, and Sn had undetermined distributions. For Ag and Tl, the boxplots show no 'suspect' values. For Cd, Pb, Mn, and Hg the cause of the higher values is unknown. Generally, these values were unique events and did not persist. Additionally, three of the higher Cd, Pb, and Mn values were associated with a large runoff event on 7/15/01.

Table 10-14. Summary Statistics for Metals Results from GS44 in WY99-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	14	0.0%	5010	7557	12600	14079 ^b
ANTIMONY	14	7.1%	0.78	1.10	1.20	1.62 ^a
ARSENIC	14	7.1%	2.05	2.83	5.60	6.14 ^a
BARIUM	14	0.0%	122	181	373	394 ^a
BERYLLIUM	14	14.3%	0.19	0.38	0.49	1.46 ^a
CADMIUM	14	50.0%	0.06	0.19	0.47	^c
CALCIUM	14	0.0%	48850	91965	224000	226653 ^a
CHROMIUM	14	7.1%	5.25	7.24	14.1	14.2 ^b
COBALT	14	14.3%	0.75	1.23	3.40	4.63 ^a
COPPER	14	0.0%	8.45	11.6	21.1	25.5 ^a
IRON	14	0.0%	3595	5129	10900	10976 ^b
LEAD	14	21.4%	3.65	6.81	12.5	^c
LITHIUM	14	0.0%	32.2	79.0	182	206 ^a
MAGNESIUM	14	0.0%	8570	17700	33300	33899 ^a
MANGANESE	14	0.0%	39.3	63.8	165	^c
MERCURY	13	76.9%	0.05	0.14	1.20	^c
MOLYBDENUM	14	0.0%	1.55	2.01	2.10	2.81 ^a
NICKEL	14	0.0%	4.30	6.21	11.1	12.0 ^a
POTASSIUM	14	0.0%	10250	14635	24300	25449 ^a
SELENIUM	14	7.1%	1.85	3.43	4.00	6.03 ^a
SILVER	14	100.0%	0.13	0.13	0.14	^c
SODIUM	14	0.0%	46950	229000	821000	728630 ^a
STRONTIUM	14	0.0%	263	553	1220	1254 ^a
THALLIUM	14	100.0%	0.49	0.49	0.50	^c
TIN	14	78.6%	0.44	0.63	2.00	^c
VANADIUM	14	0.0%	10.5	14.9	28.8	49.0 ^a
ZINC	14	0.0%	102	170	384	301 ^a

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

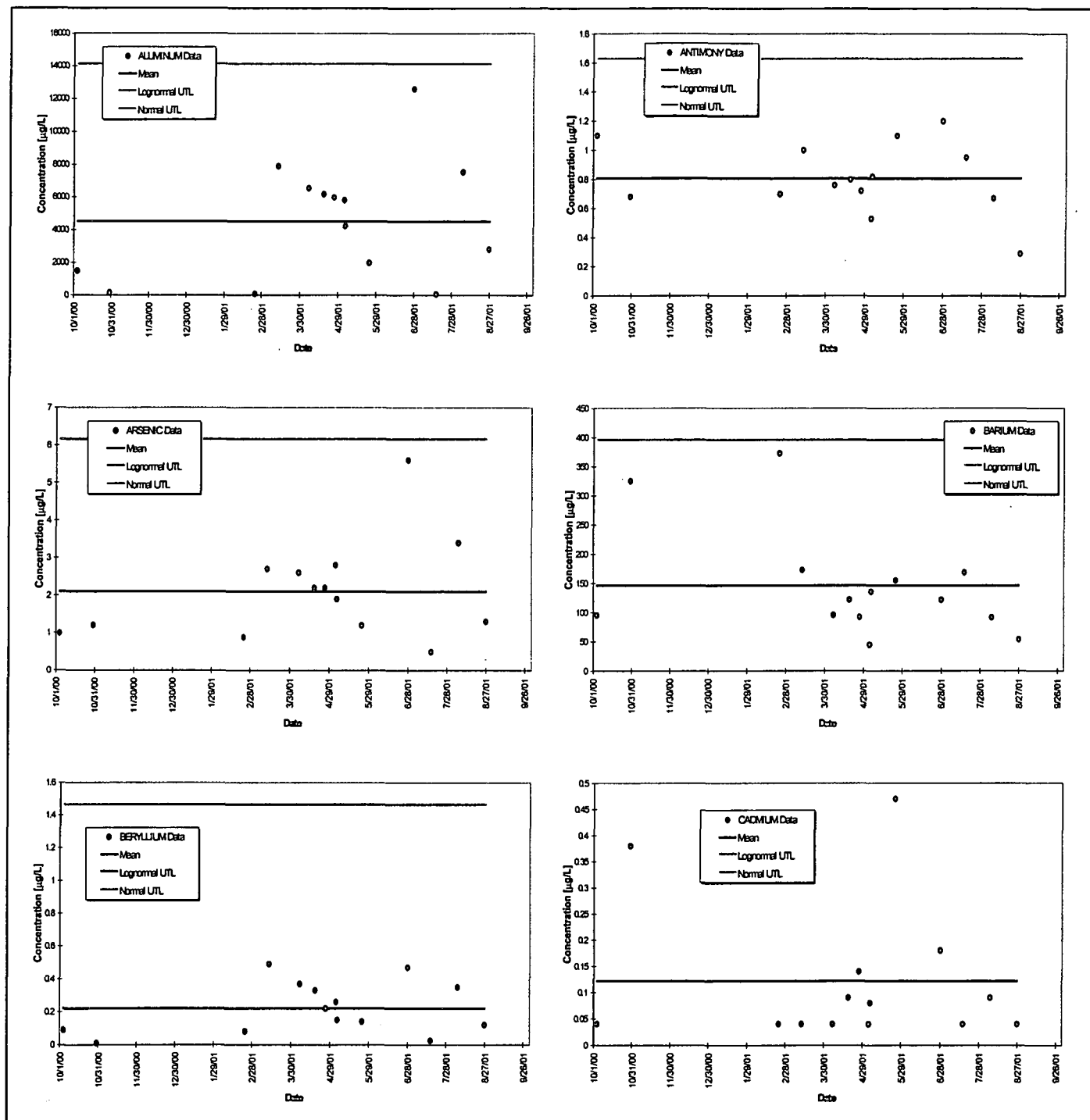


Figure 10-67. Total Metals UTL Plots for GS44: Aluminum through Cadmium.

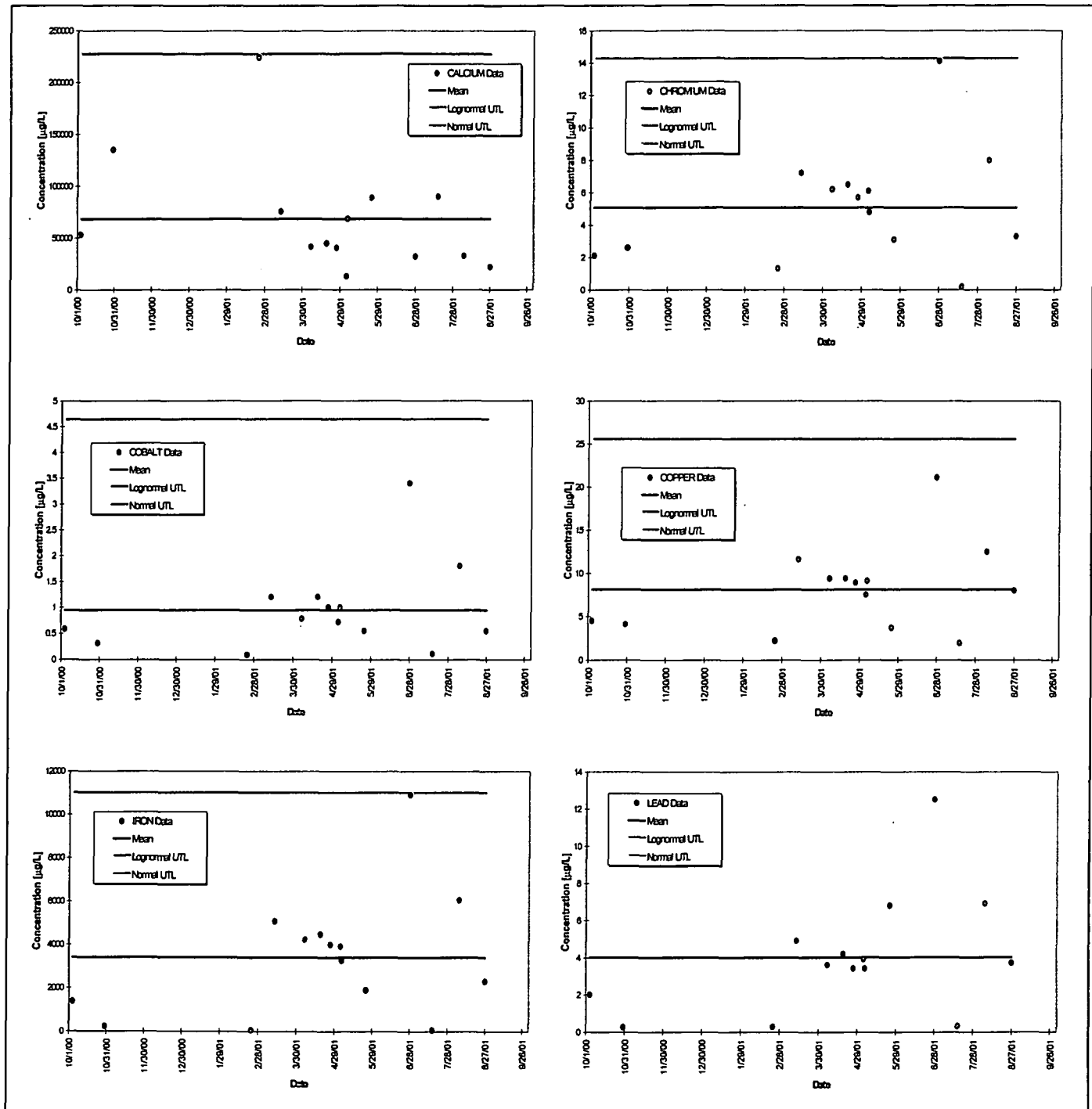


Figure 10-68. Total Metals UTL Plots for GS44: Calcium through Lead.

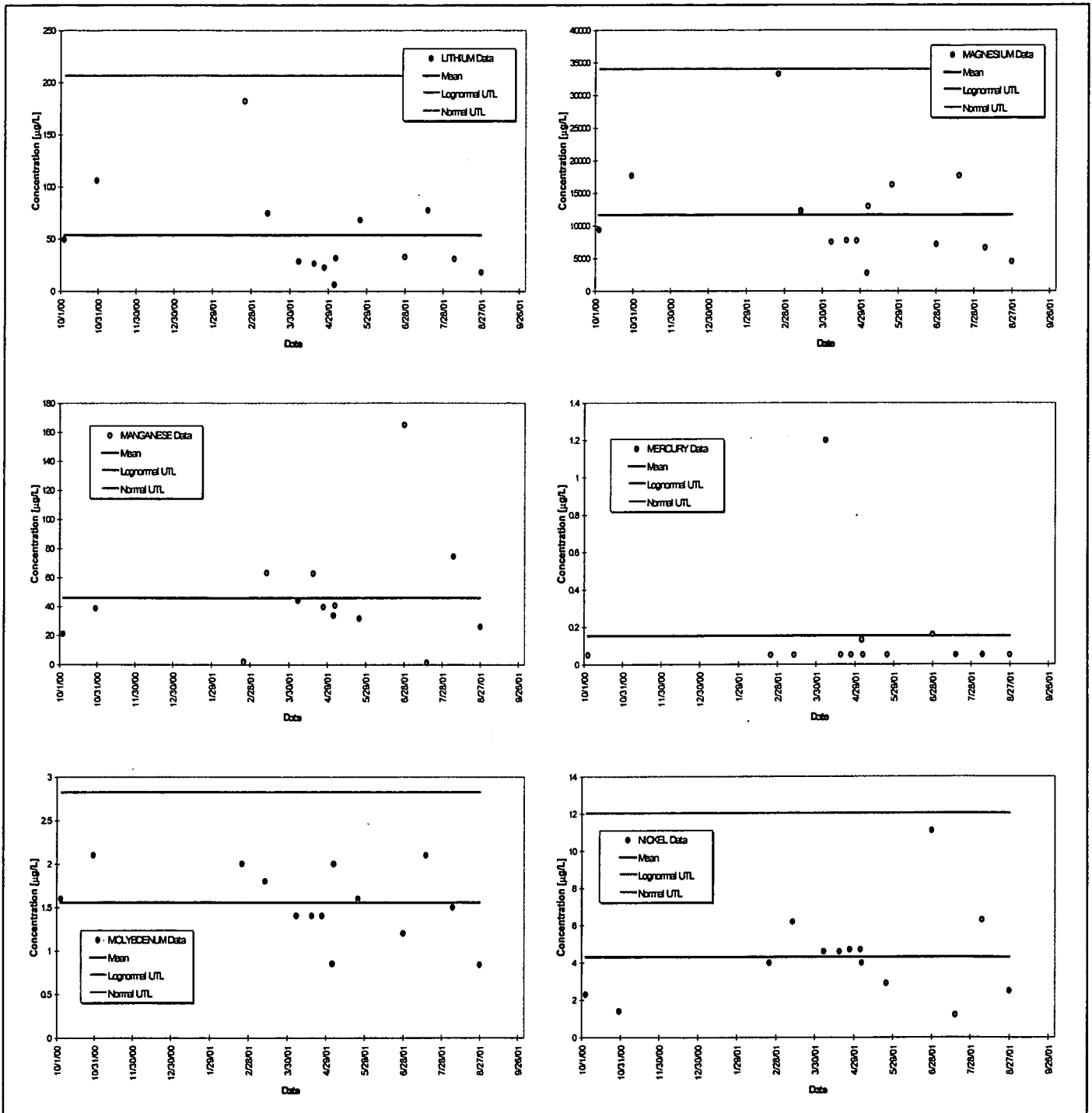


Figure 10-69. Total Metals UTL Plots for GS44: Lithium through Nickel.

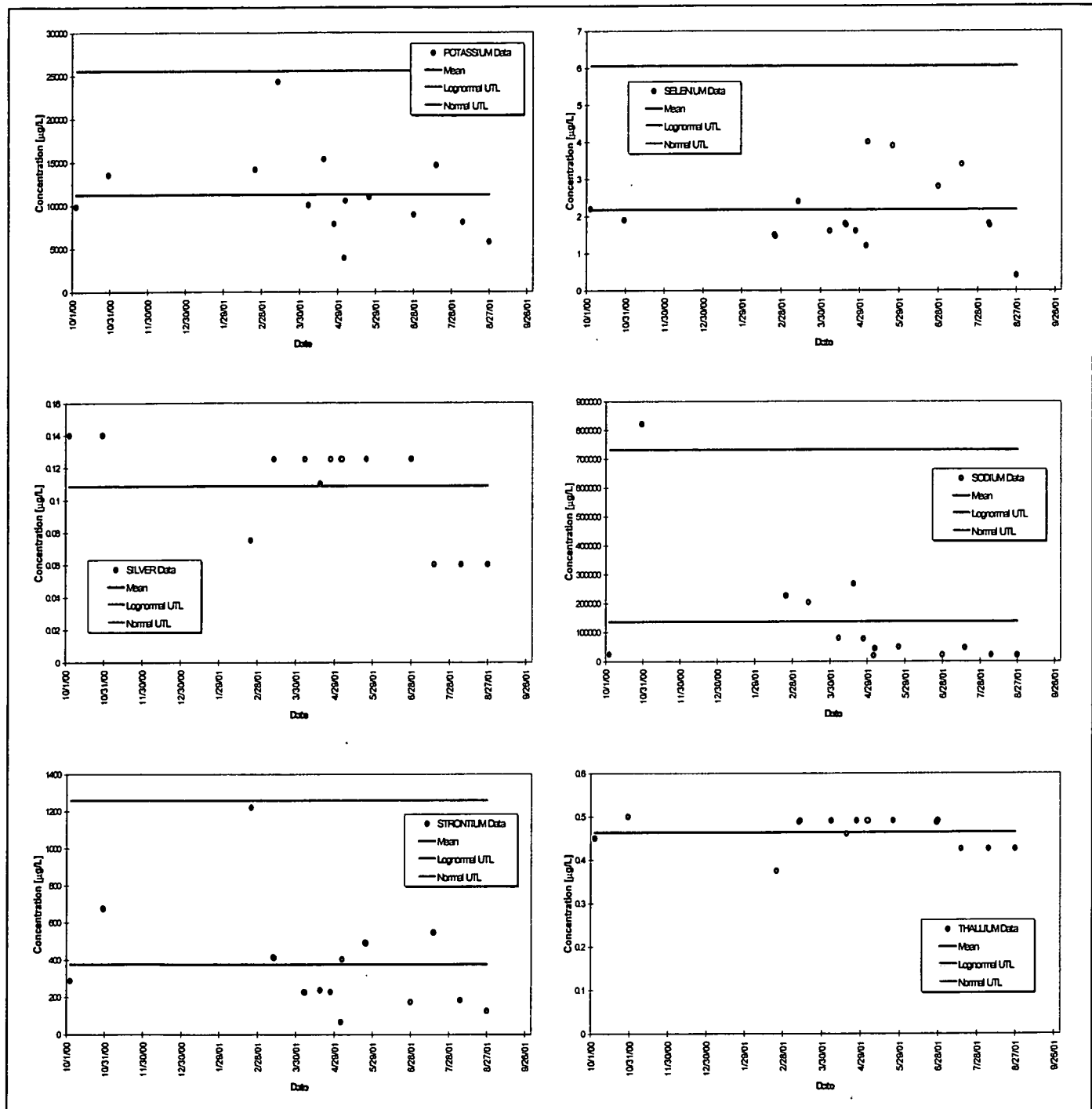


Figure 10-70. Total Metals UTL Plots for GS44: Potassium through Thallium.

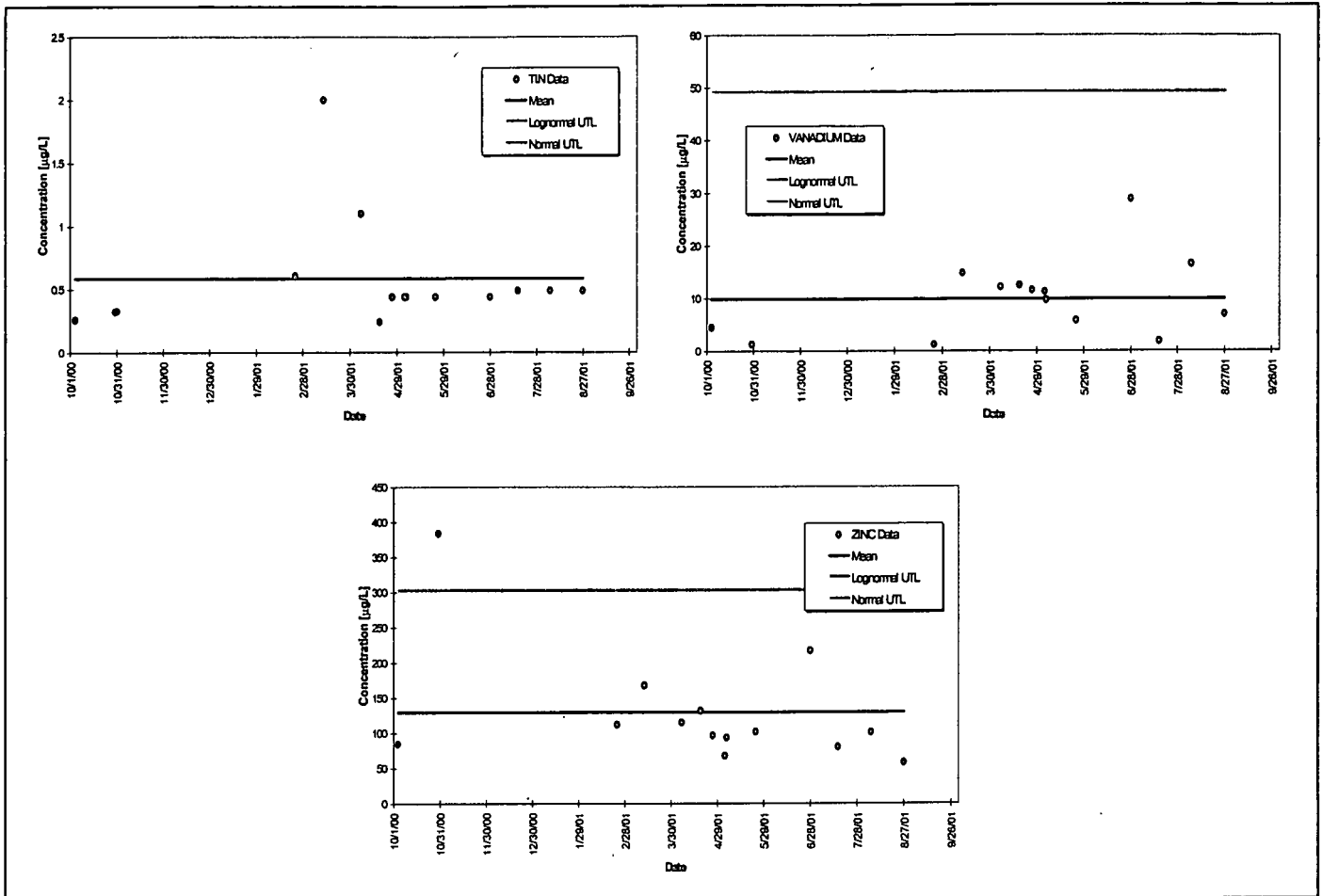


Figure 10-71. Total Metals UTL Plots for GS44: Tin through Zinc.

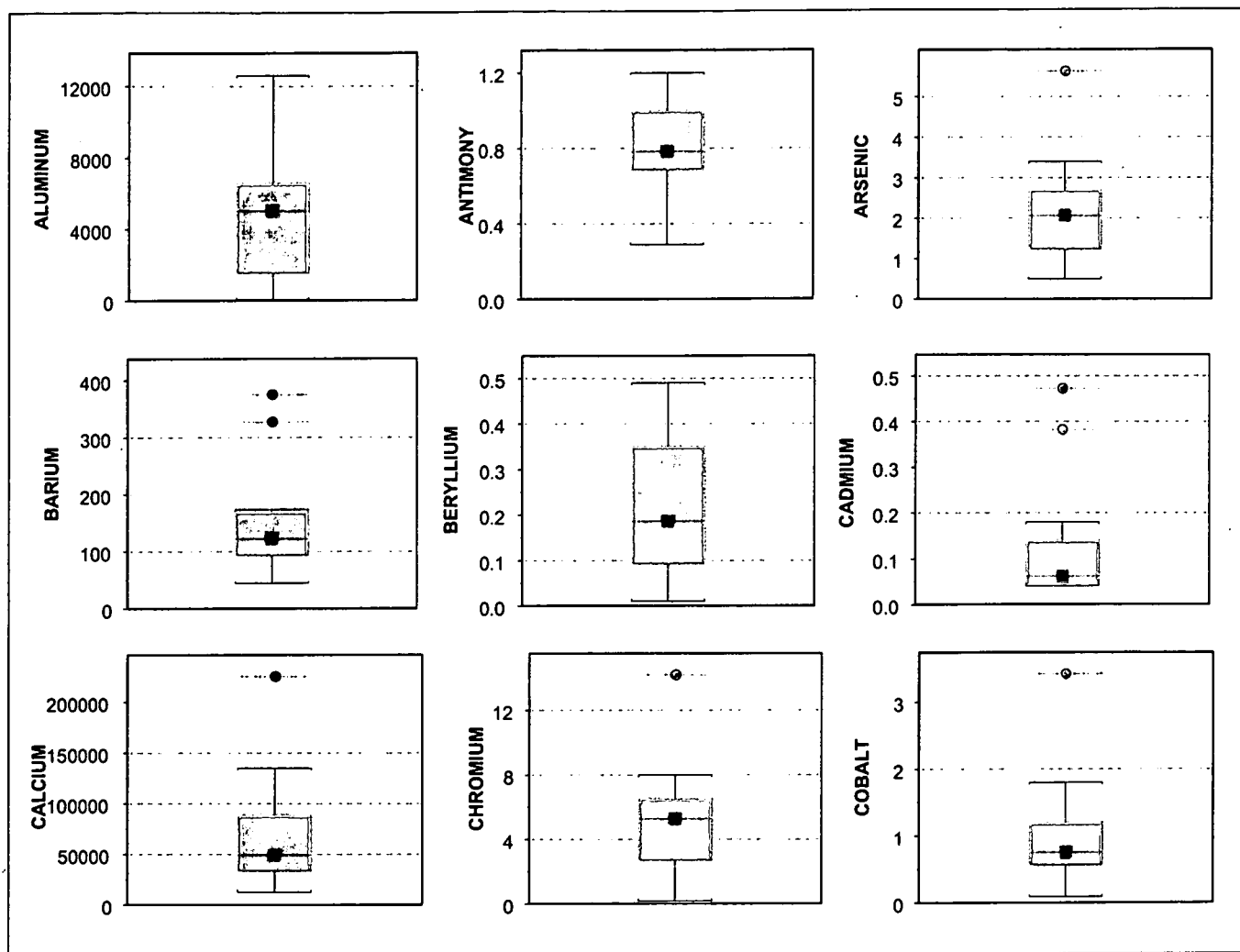


Figure 10-72. Total Metals Box Plots for GS44: Aluminum through Cobalt.

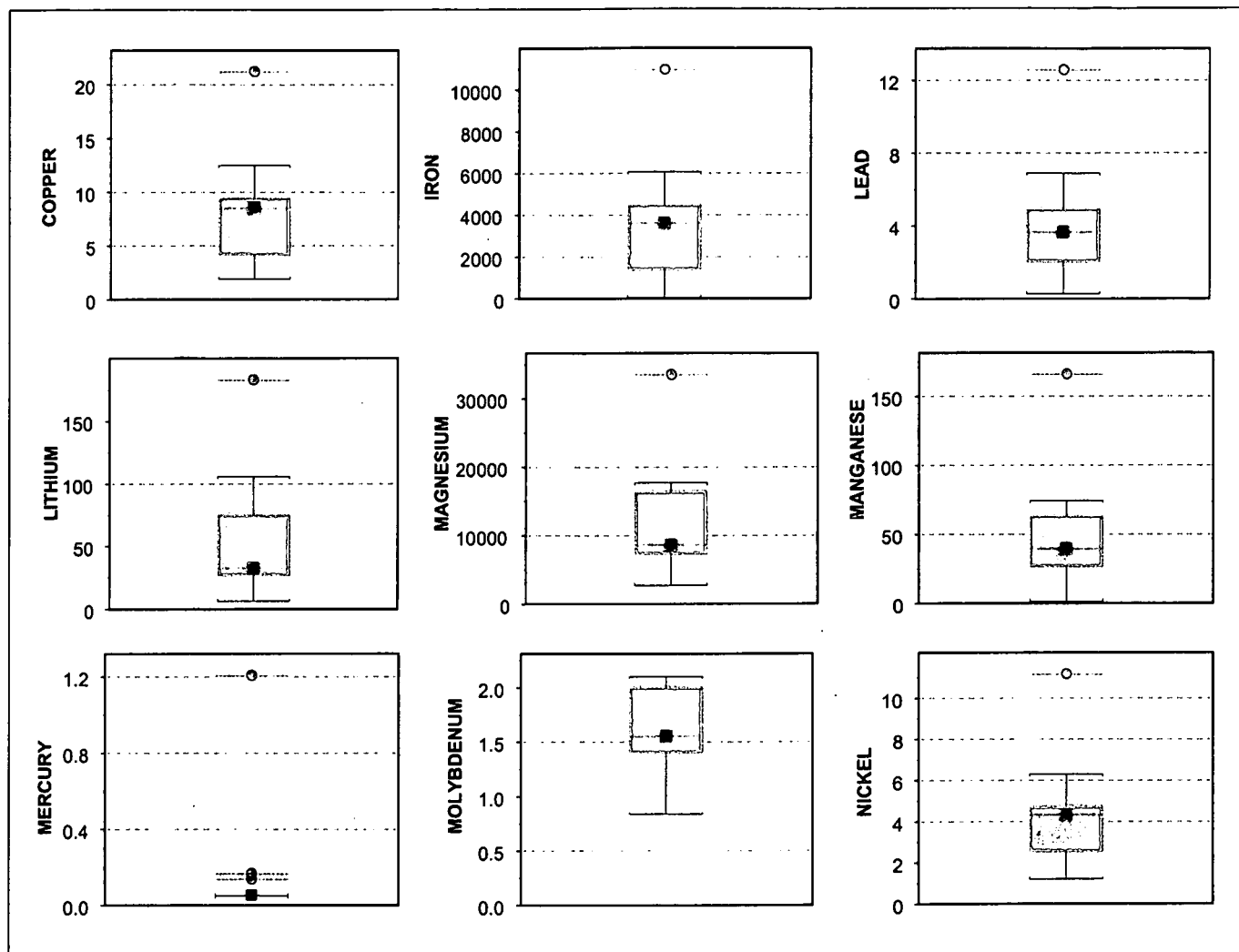


Figure 10-73. Total Metals Box Plots for GS44: Copper through Nickel.

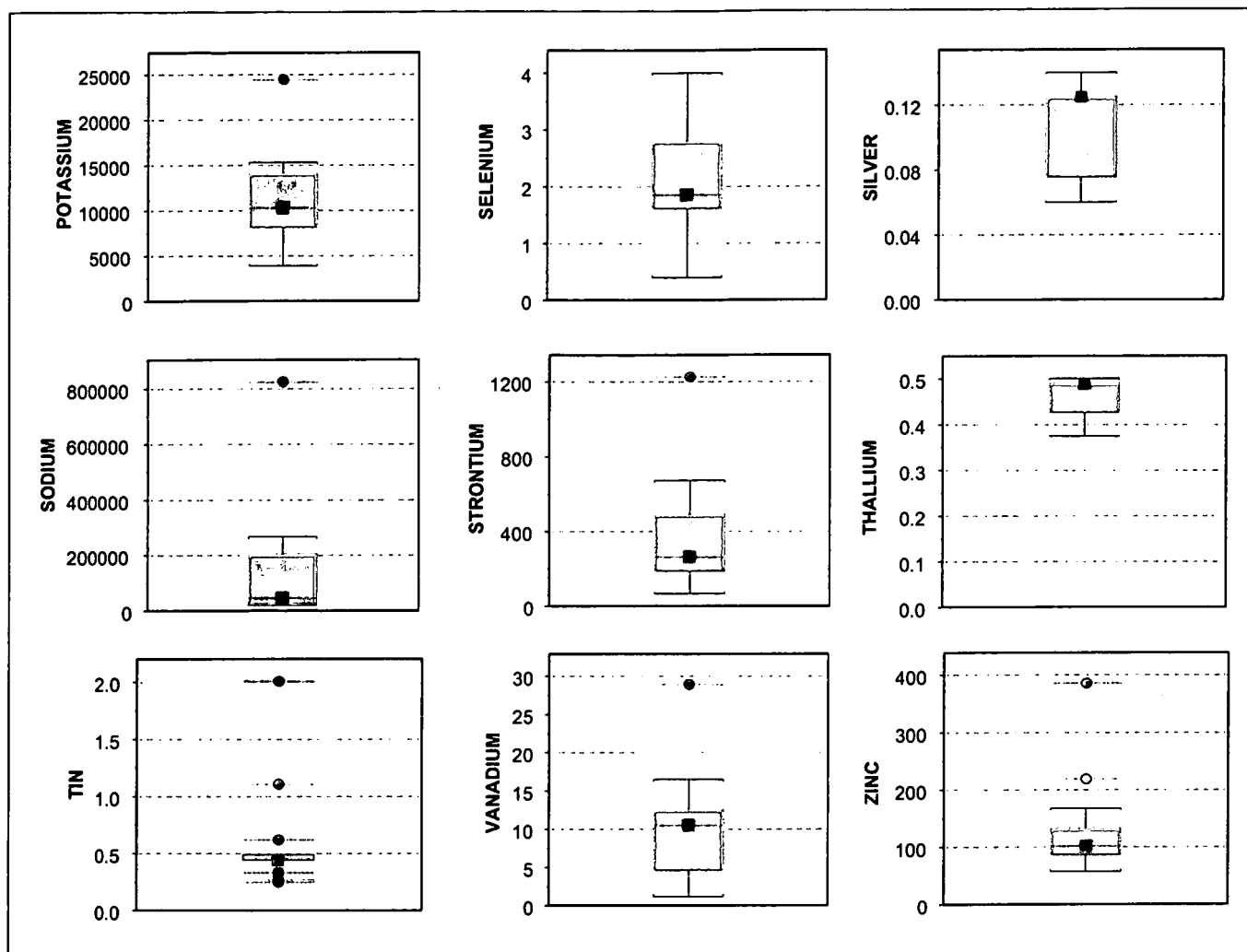
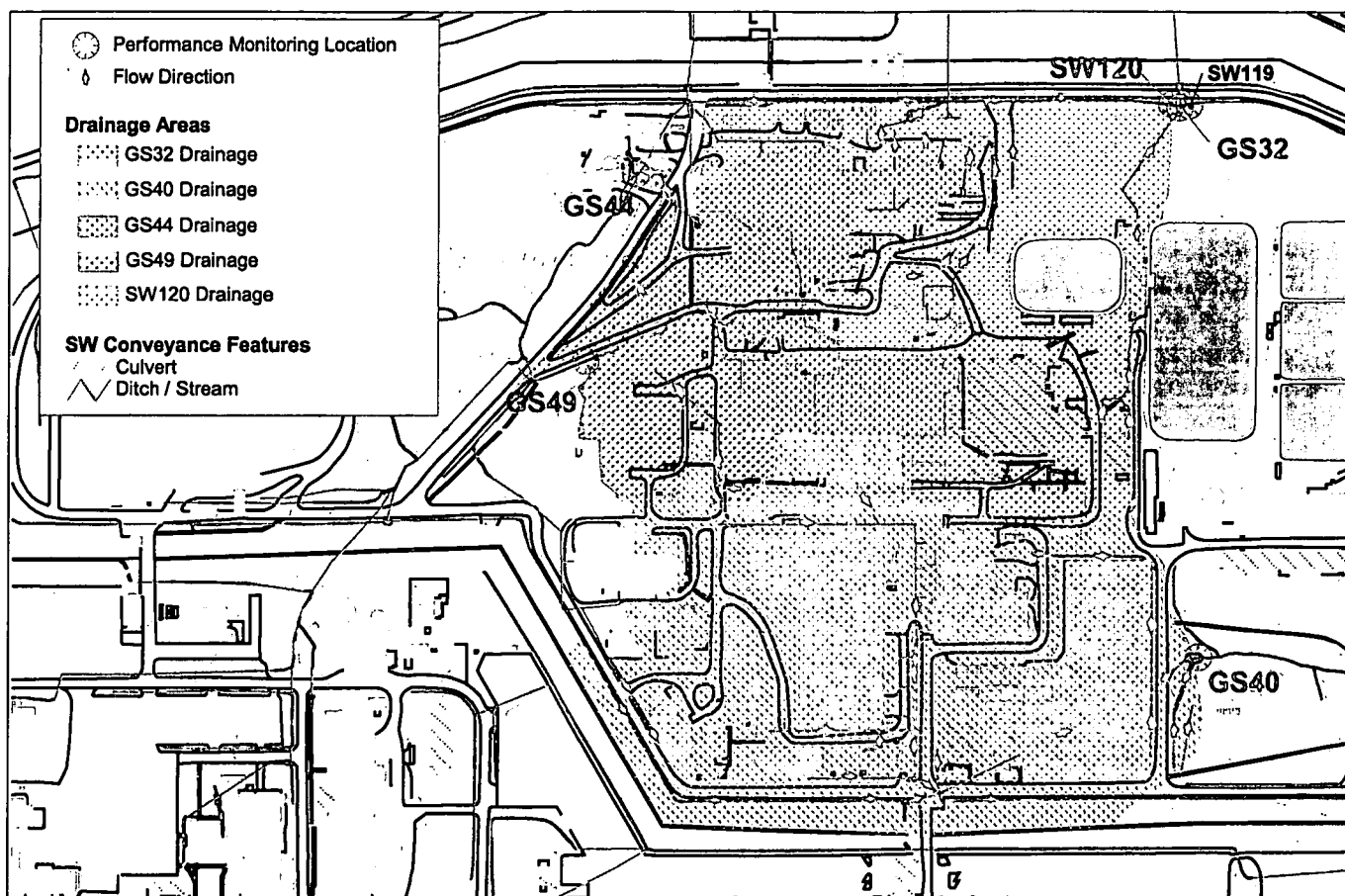


Figure 10-74. Total Metals Box Plots for GS44: Potassium through Zinc.

10.3.6 Building 776/777 D&D

Due to the location of B776/777, multiple downstream performance monitoring locations are employed. Monitoring location GS32 was originally installed on 1/31/97 in support of the D&D of Building 779, and remains to support the D&D activities for Building 776/777. In support of the B776/777 D&D, tritium was added to the original B779 analyte suite in WY01. Location GS40, originally installed in support of the GS10 Source Evaluation effort on 3/4/98, also supports B776/777. GS44, GS49, and SW120 were installed on 10/4/00, 12/29/00, and 3/14/00, respectively. Figure 10-75 shows the drainage areas for the above locations. Numerous other 700 Area buildings are within these drainages.

Monitoring data for GS40 was previously presented in Section 10.3.3. Monitoring data for GS44 and SW120 was previously presented in Section 10.3.5.



Drainage divides on building roofs are approximated.

Figure 10-75. Performance Monitoring Drainage Areas for B776/777 D&D.

Monitoring data collected at GS32 have somewhat higher Pu and Am activities than for other automated monitoring locations (Table 10-15). Figure 10-76 and Figure 10-77 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu results exceeded the calculated UTL. For Am, the data distribution could not be determined, but Figure 10-80 indicates that none of the data can be considered 'suspect'. Figure 10-80 also shows a somewhat lower Pu/Am ratio than expected. This is likely due to the proximity of GS32 to the Solar Ponds.

Figure 10-78 shows the UTL plot for tritium. During WY99-01, no tritium results exceeded the calculated UTL.

Figure 10-79 shows a significant short-term increase in total uranium activities, two of which are greater than the UTL. These samples were collected soon after completion of the demolition of B779. Building personnel were notified of the results and a field investigation ensued. The investigation looked into the possible existence of sumps or drains that may be flowing to GS32. No causes could be determined, and subsequent sample results reverted to normal levels. Figure 10-82 shows a somewhat higher U-233,234/U-238 ratio than expected. This may indicate the existence of modified uranium, and is likely due to the proximity of GS32 to the Solar Ponds.

Figure 10-83 shows that suspended solids activity has not changed significantly over time. However, data collected after completion of the B779 D&D show reduced activities.

Table 10-15. Summary Statistics for Radionuclide Results from GS32 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	23	420	1082	1900	NA
Pu-239,240	29	0.875	4.900	11.5	31.22 ^a
Am-241	29	0.739	3.256	4.06	^c
Tritium	7	1	85	130	317 ^b
U-233,234	29	1.040	2.546	10.8	9.52 ^a
U-235	29	0.058	0.112	0.319	
U-238	29	0.774	1.340	6.41	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

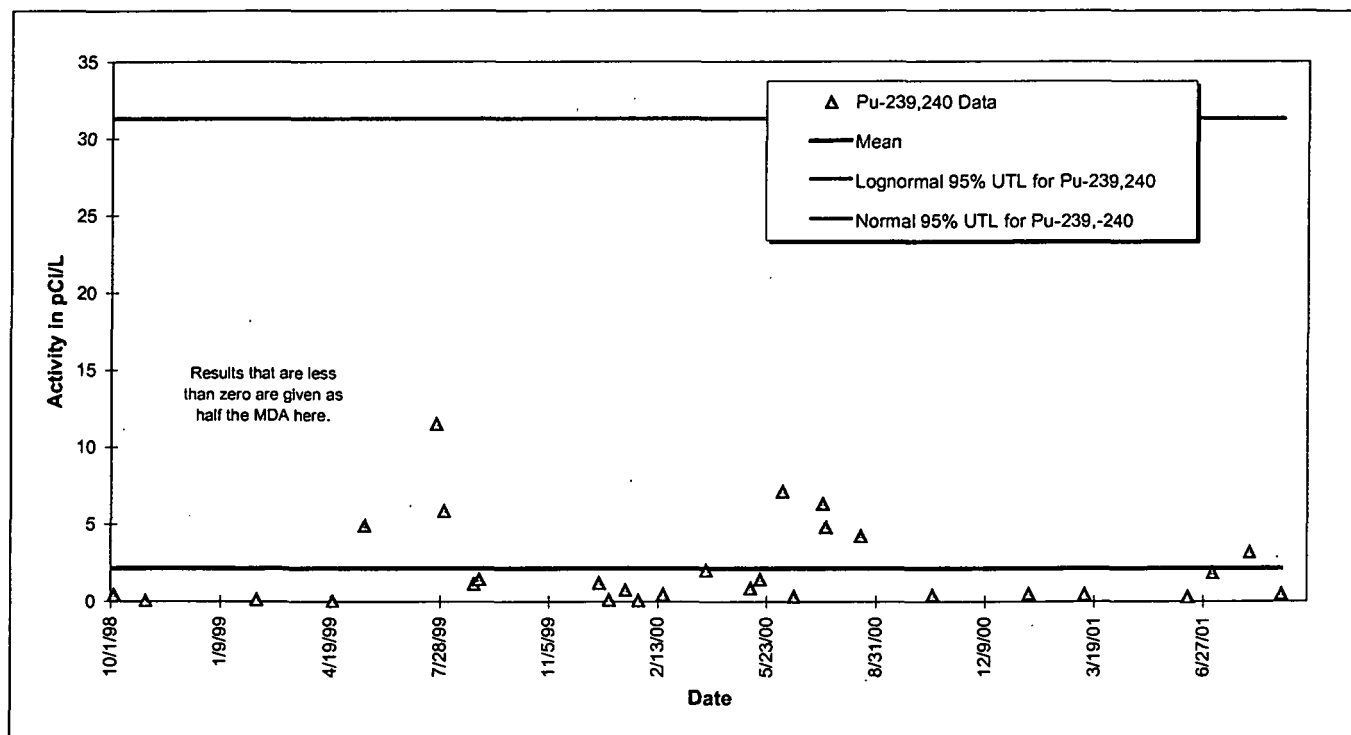


Figure 10-76. 95% UTL Plot for Pu-239,240 at GS32: WY99-01.

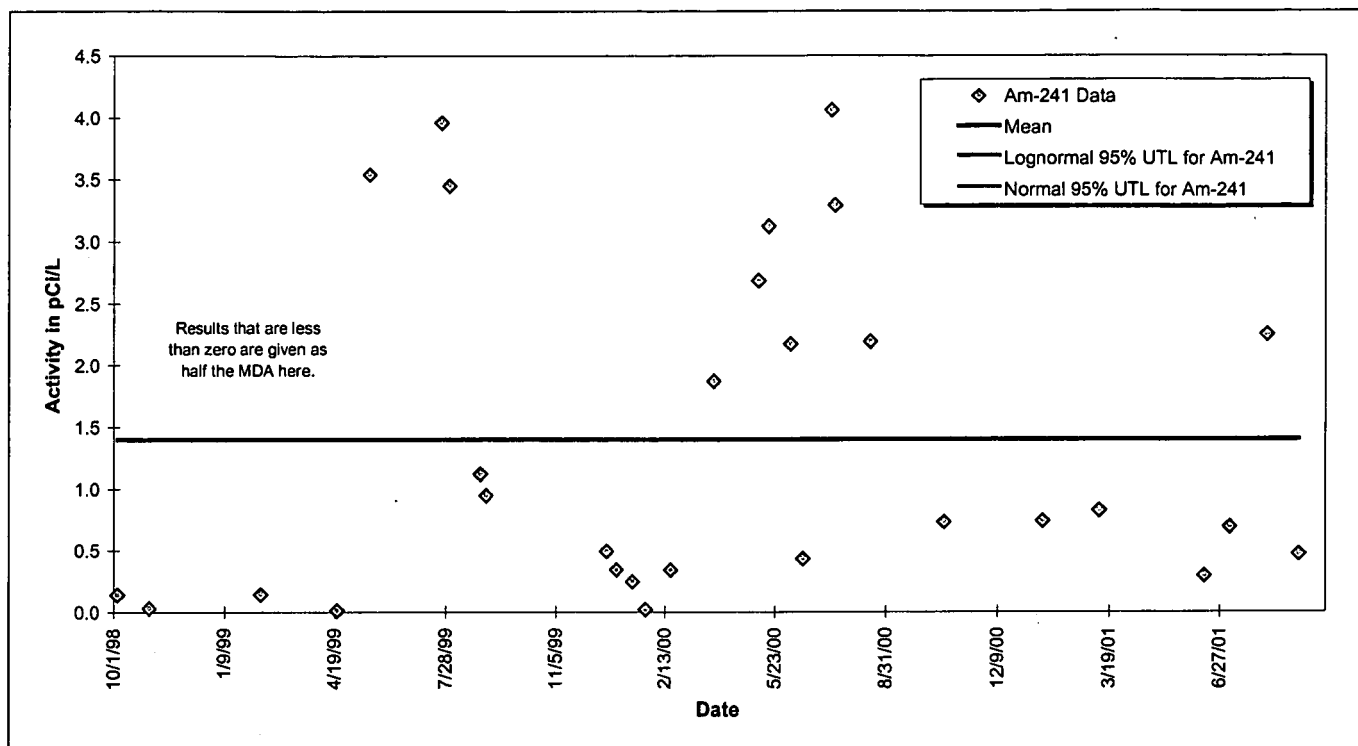


Figure 10-77. 95% UTL Plot for Am-241 at GS32: WY99-01.

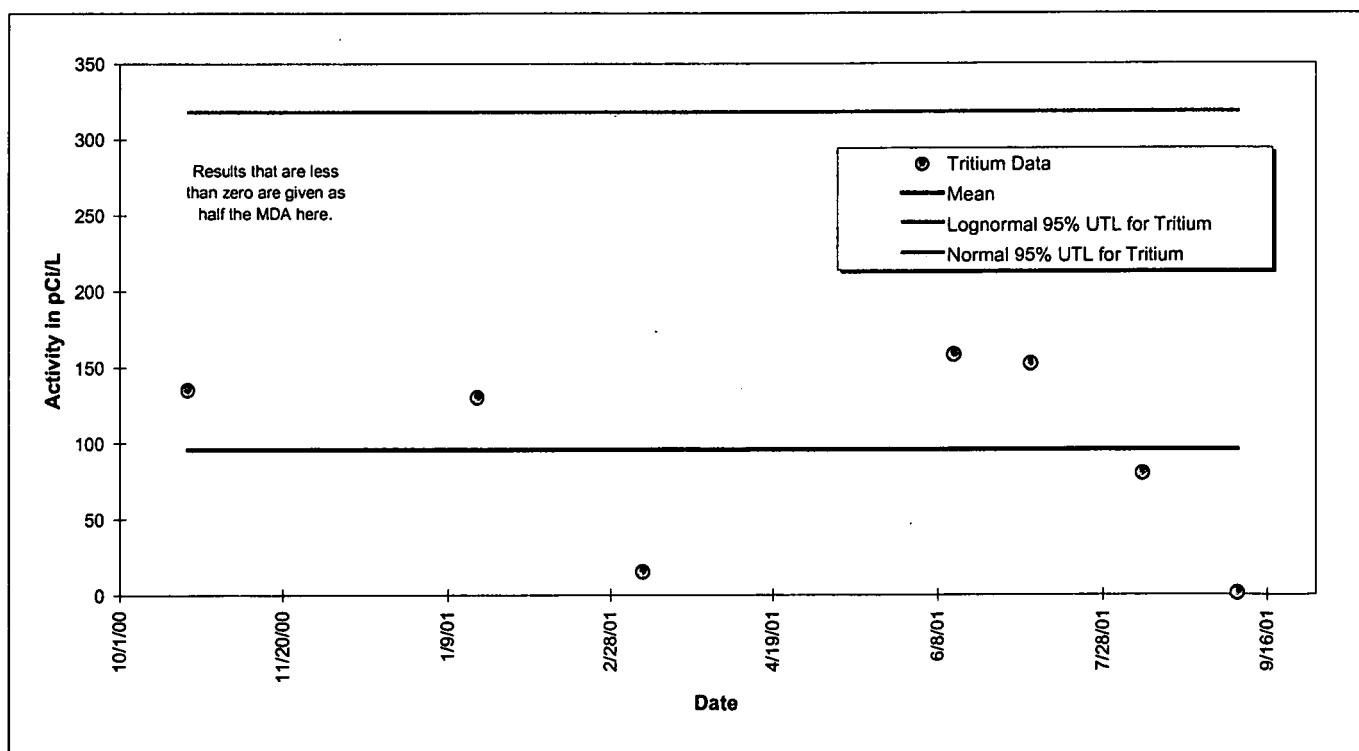


Figure 10-78. 95% UTL Plot for Tritium at GS32: WY99-01.

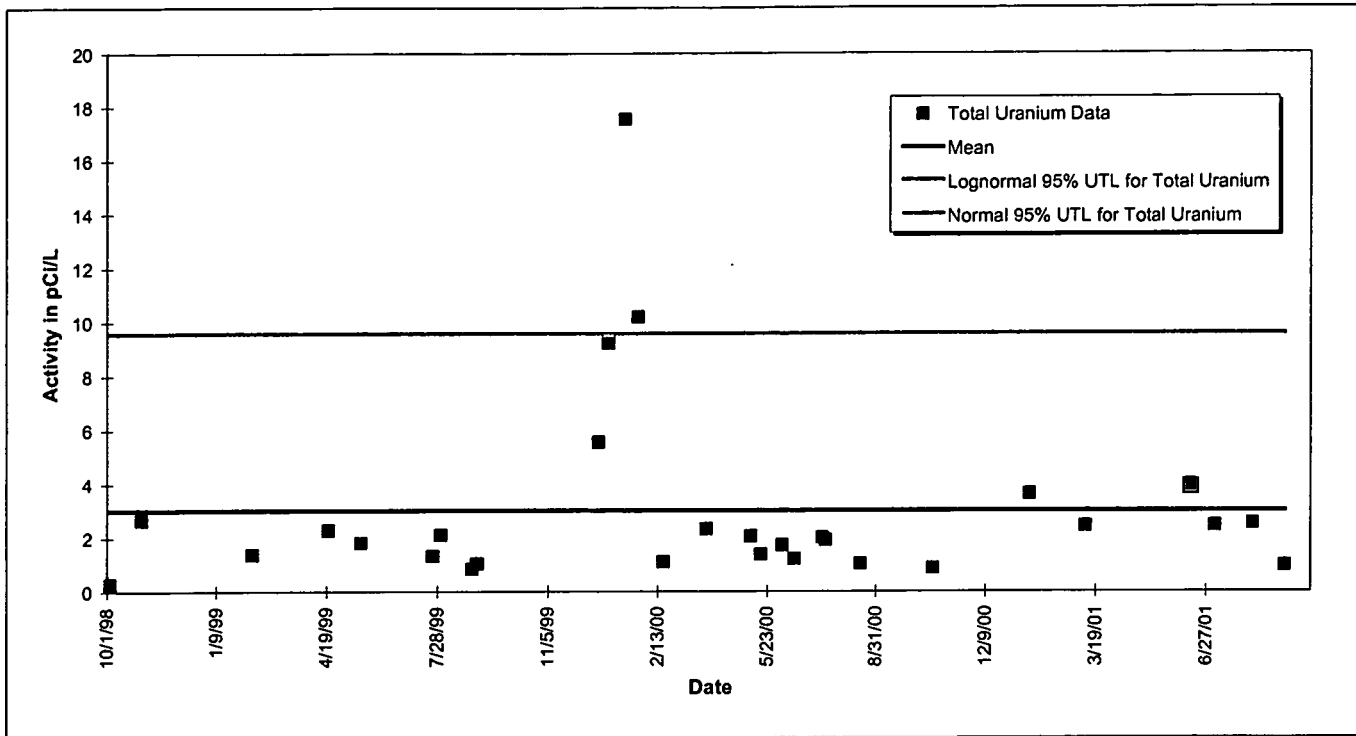


Figure 10-79. 95% UTL Plot for Total Uranium at GS32: WY99-01.

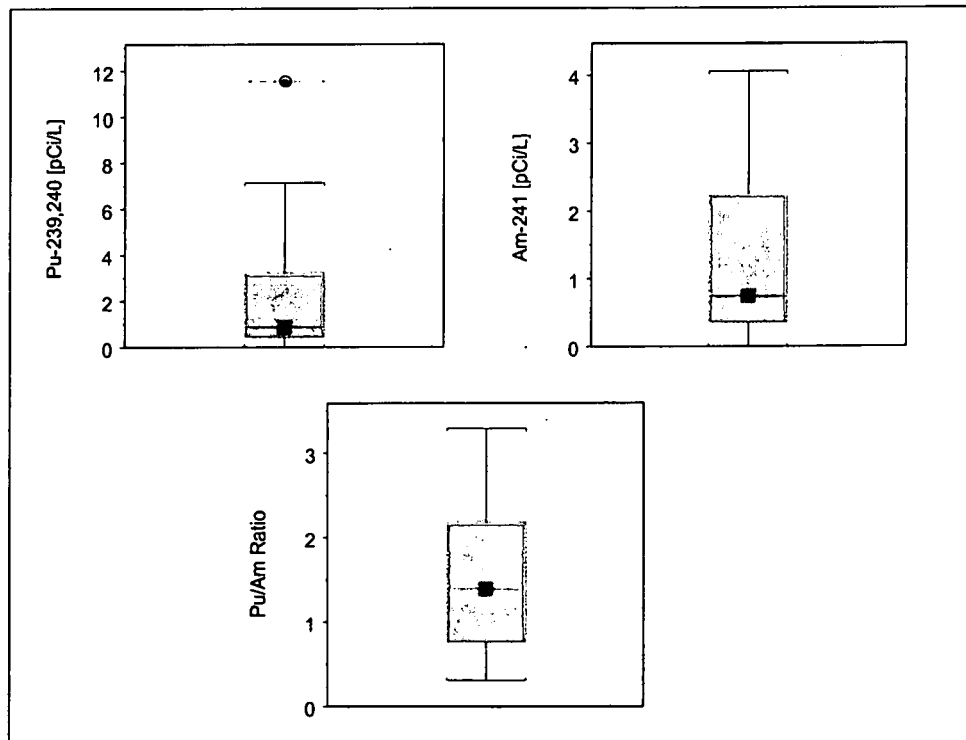


Figure 10-80. Pu and Am Box Plots for GS32: WY99-01.

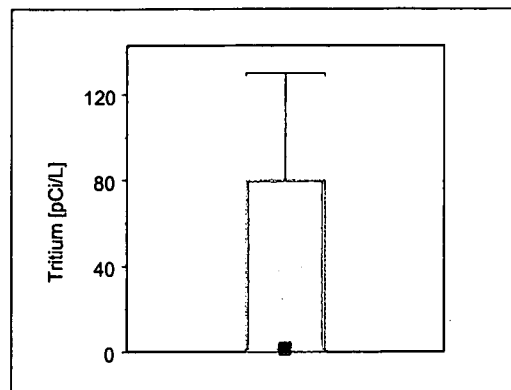


Figure 10-81. Tritium Box Plot for GS32: WY99-01.

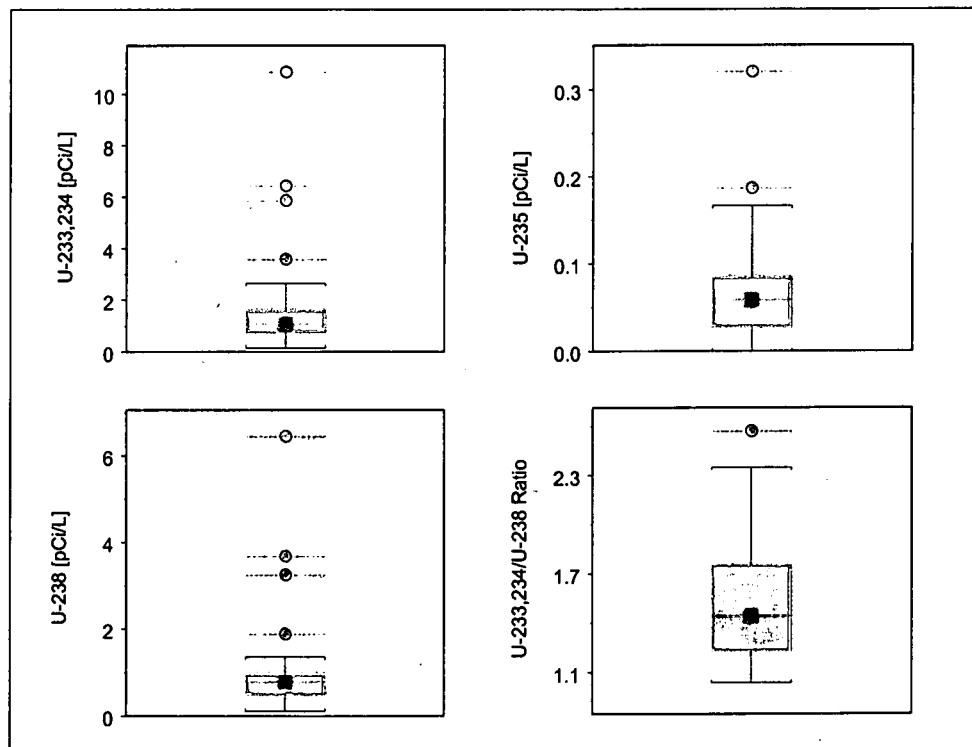


Figure 10-82. Uranium Box Plots for GS32: WY99-01.

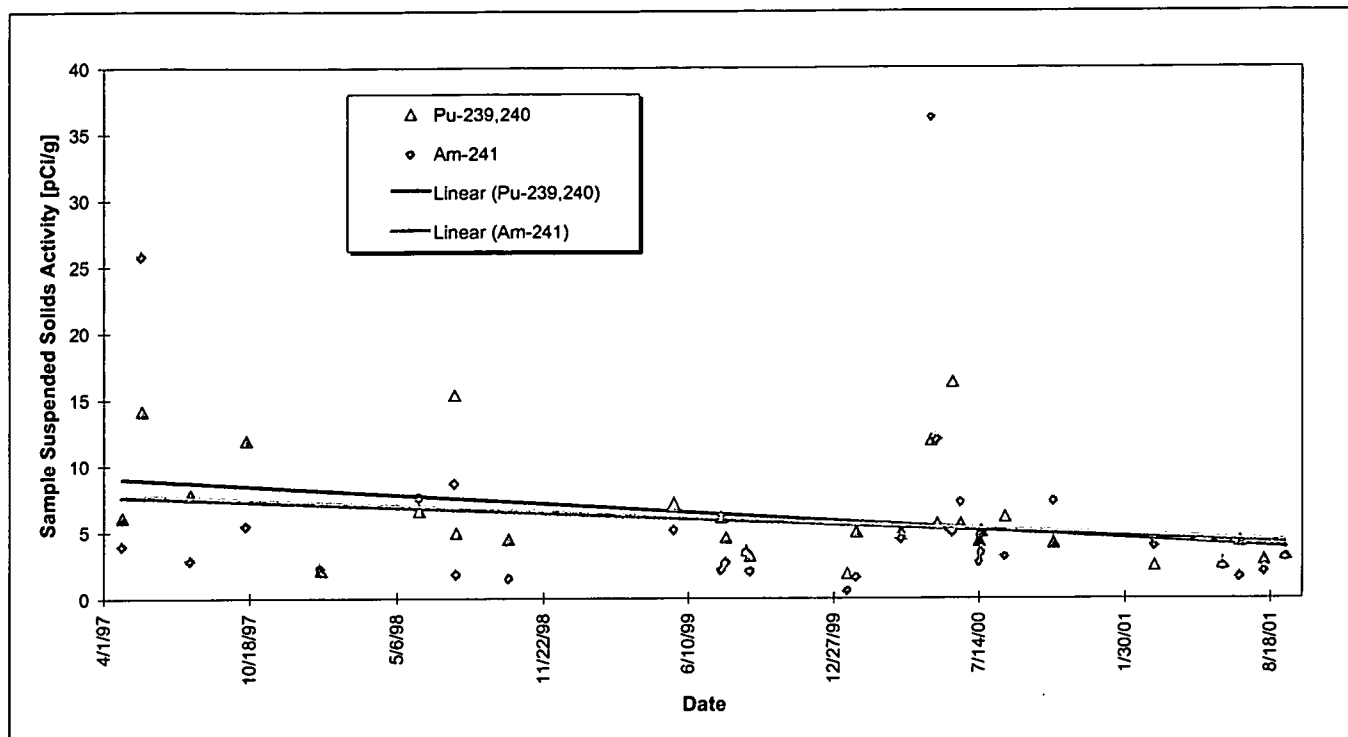


Figure 10-83. Temporal Variation of Suspended Solids Activity at GS32: WY97-01.

Table 10-16 shows the total metals results for samples collected at GS32. Figure 10-84 through Figure 10-88 show the UTL plots for the metals. For the metals with a determined distribution, most results did not exceed the calculated UTL. Only Ca, Li, Mg, Mo, and Zn showed results greater than the UTL. Most of these higher metals values are associated with the elevated uranium activities noted above, coinciding with the completion of the B779 demolition. The increased deconstruction activities and accumulation of demolition debris may have resulted in the higher concentrations. In addition, heavy winter road/walkway salting has been noted to cause water-quality impacts at the Site. Expected increases in K and Na can clearly be seen below. Trace constituents in these products could also be causing elevated concentrations for other metals. In all cases, subsequent samples showed normal metals concentrations.

For the metals with undetermined distributions, Sb, Fe, Pb, Hg, K, Ag, Na, Sr, Tl, and Sn show 'suspect' values as indicated by the boxplots. Most of the higher K, Hg, Na, and Sr values are associated with the elevated uranium activities noted above, coinciding with the completion of the B779 demolition. The increased deconstruction activities and accumulation of demolition debris may have resulted in the higher concentrations. The other K, Na, and Sr values are likely associated with salting operations (a relationship between Na and Sr has been noted at the Site). Trace constituents in these products could also be causing elevated concentrations for other metals. The higher Sb, Fe, and Pb results are associated with a large storm event and a corresponding TSS value of 1130 mg/L. For Ag, all but one of the results are near the detection limit; the cause of the other result is unknown. For Tl, the two 'suspect' results are near the detection limit. For Sn, one of the results is associated with the 8/9/01 event; the cause of the other results is unknown.

Table 10-16. Summary Statistics for Metals Results from GS32 in WY99-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	29	0.0%	4770	16840	30200	^c
ANTIMONY	29	6.9%	6.80	15.3	31.5	^c
ARSENIC	29	3.4%	4.80	8.76	12.6	12.8 ^b
BARIUM	29	0.0%	158	254	334	411 ^a
BERYLLIUM	29	6.9%	0.48	1.14	1.80	^c
CADMIUM	29	0.0%	1.40	2.66	4.80	5.71 ^a
CALCIUM	29	0.0%	53700	83720	164000	139130 ^a
CHROMIUM	29	0.0%	13.2	30.7	48.8	72.1 ^a
COBALT	29	3.4%	4.10	8.70	12.7	^c
COPPER	29	0.0%	48.0	89.8	114	124 ^b
IRON	29	0.0%	9380	19280	35500	^c
LEAD	29	3.4%	20.5	52.9	91.8	^c
LITHIUM	29	0.0%	22.8	55.8	143	117 ^a
MAGNESIUM	29	0.0%	6000	10180	18200	16318 ^a
MANGANESE	29	0.0%	291	555	767	802 ^b
MERCURY	28	67.9%	0.05	0.12	0.27	^c
MOLYBDENUM	29	3.4%	3.40	5.88	28.5	19.0 ^a
NICKEL	29	0.0%	9.60	21.4	32.2	34.3 ^a
POTASSIUM	29	0.0%	11700	26360	674000	^c
SELENIUM	29	62.1%	0.55	1.68	2.40	^c
SILVER	29	75.9%	0.13	0.36	2.10	^c
SODIUM	29	0.0%	58600	1074000	2930000	^c
STRONTIUM	29	0.0%	202	590	2050	^c
THALLIUM	29	89.7%	0.49	0.73	1.30	^c
TIN	29	48.3%	0.55	1.96	6.60	^c
VANADIUM	29	0.0%	22.7	50.4	79.4	121 ^a
ZINC	29	0.0%	960	3286	7620	5183 ^a

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

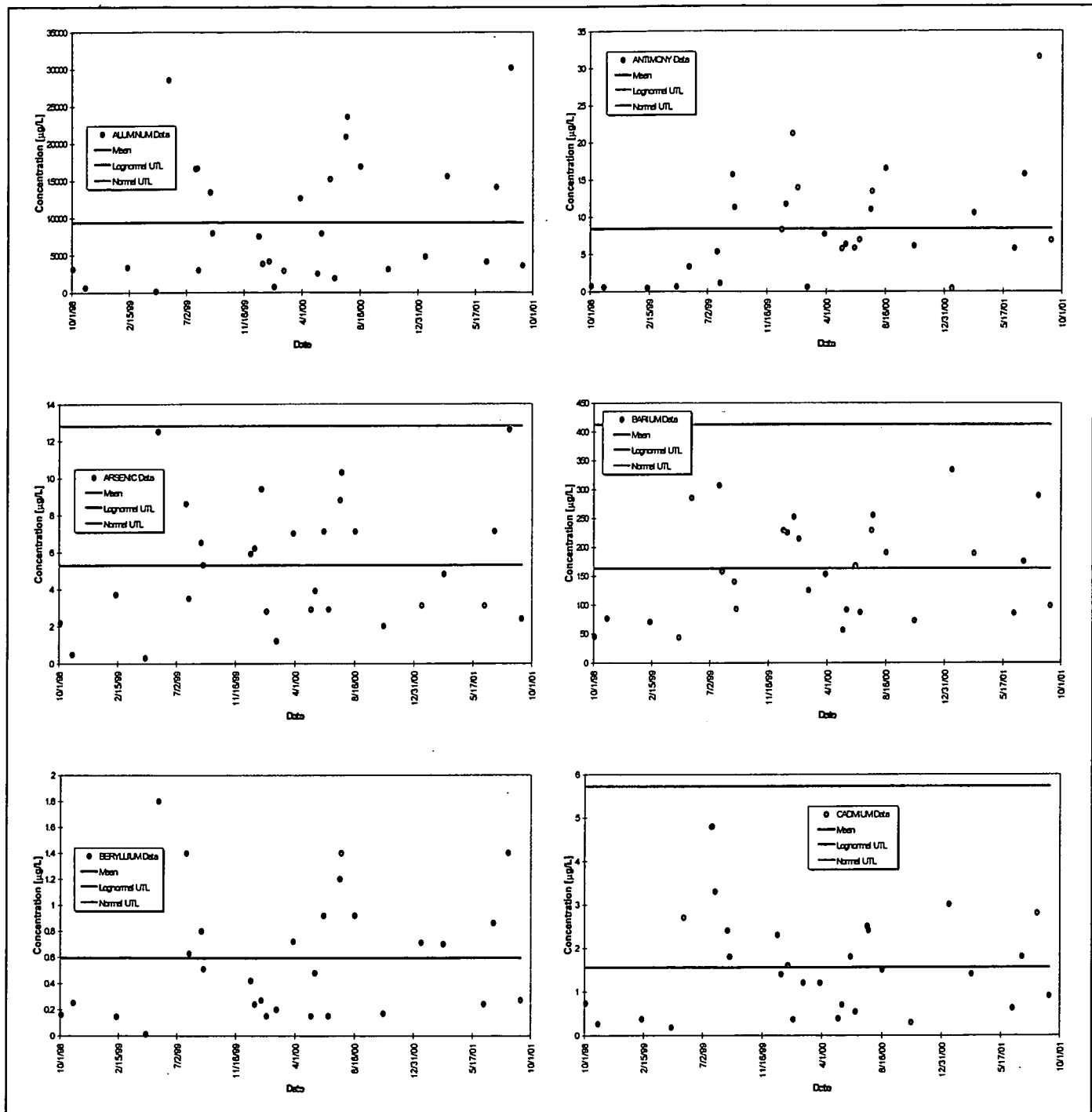


Figure 10-84. Total Metals UTL Plots for GS32: Aluminum through Cadmium.

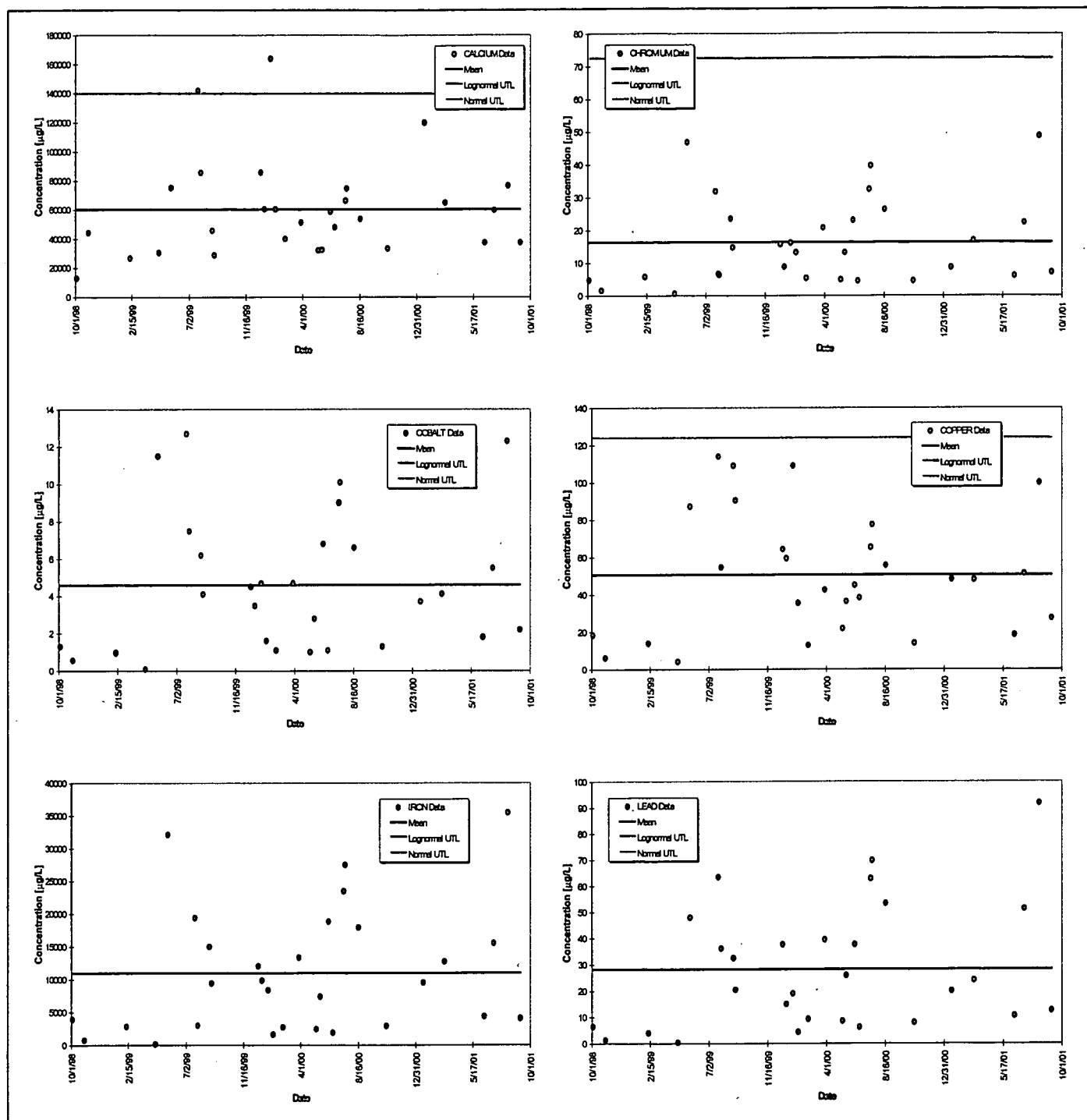


Figure 10-85. Total Metals UTL Plots for GS32: Calcium through Lead.

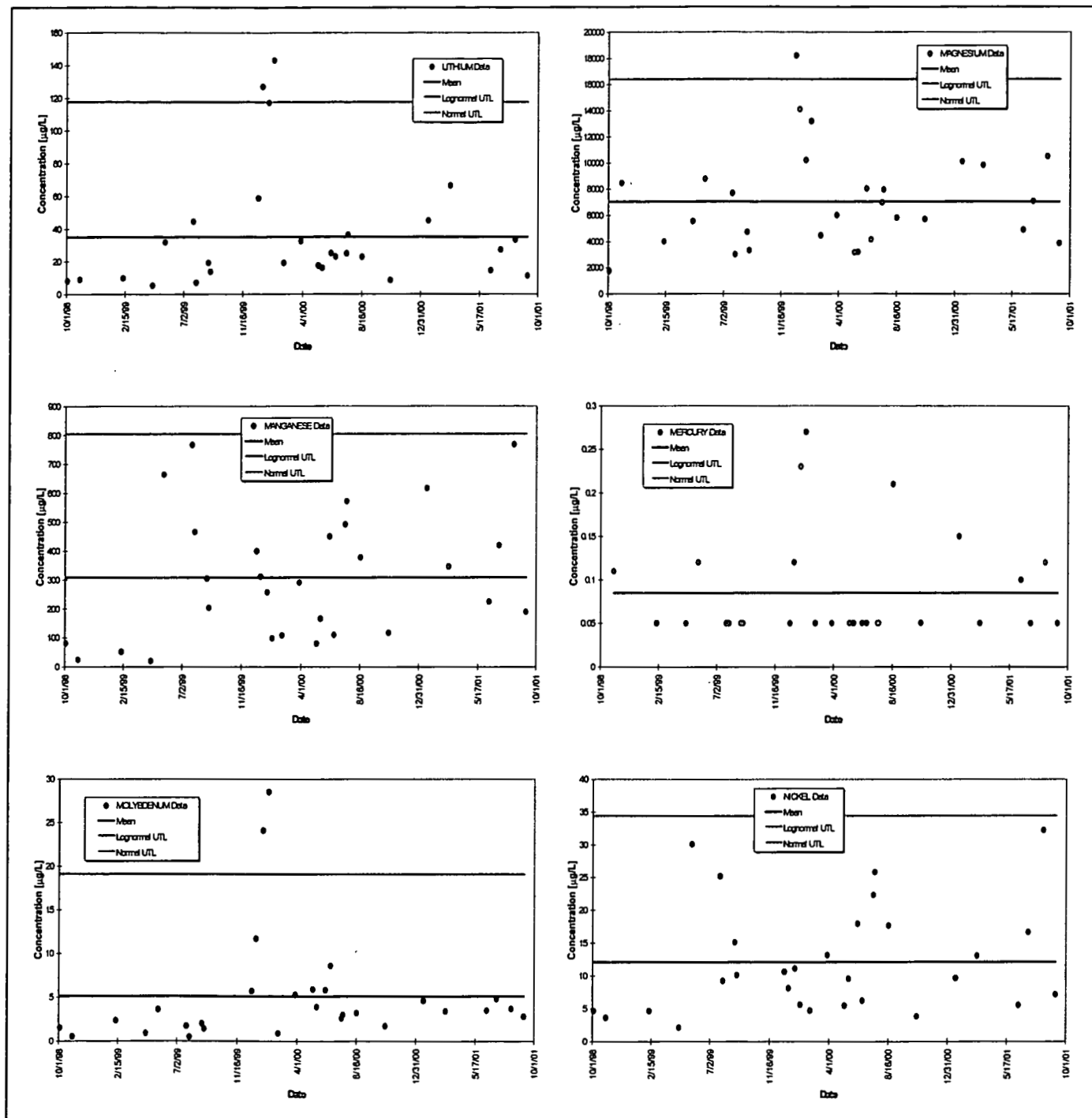


Figure 10-86. Total Metals UTL Plots for GS32: Lithium through Nickel.

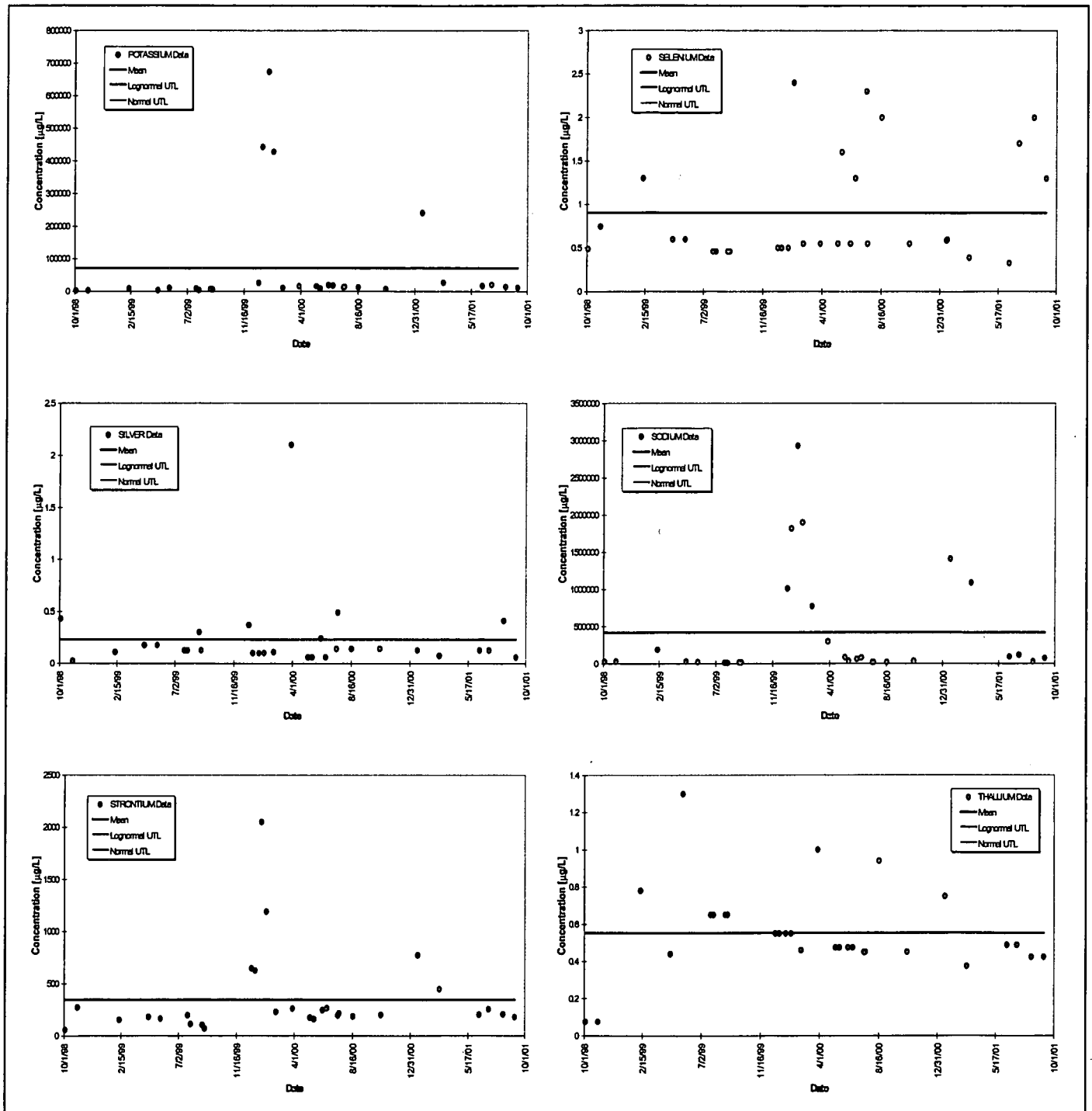


Figure 10-87. Total Metals UTL Plots for GS32: Potassium through Thallium.

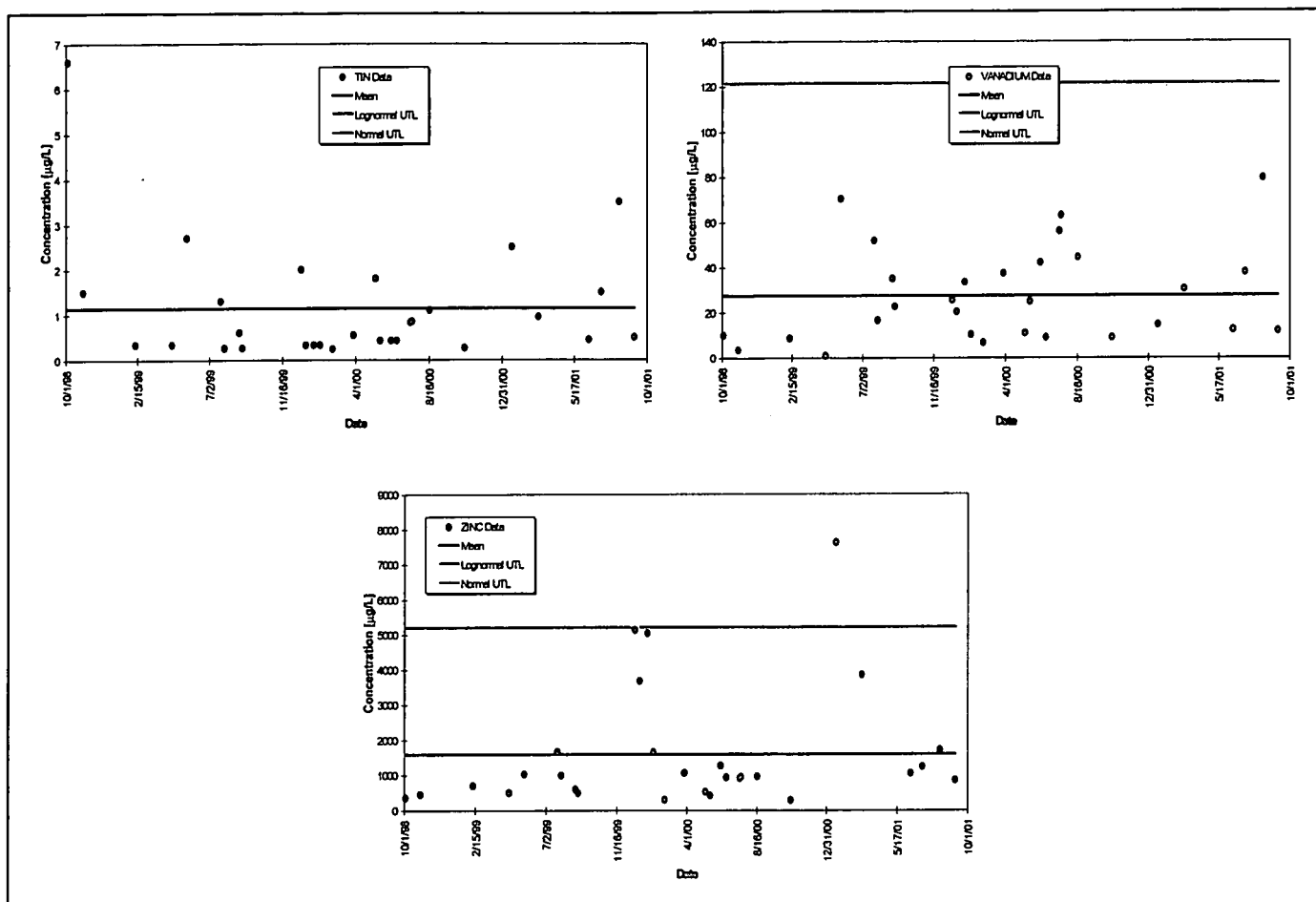


Figure 10-88. Total Metals UTL Plots for GS32: Tin through Zinc.

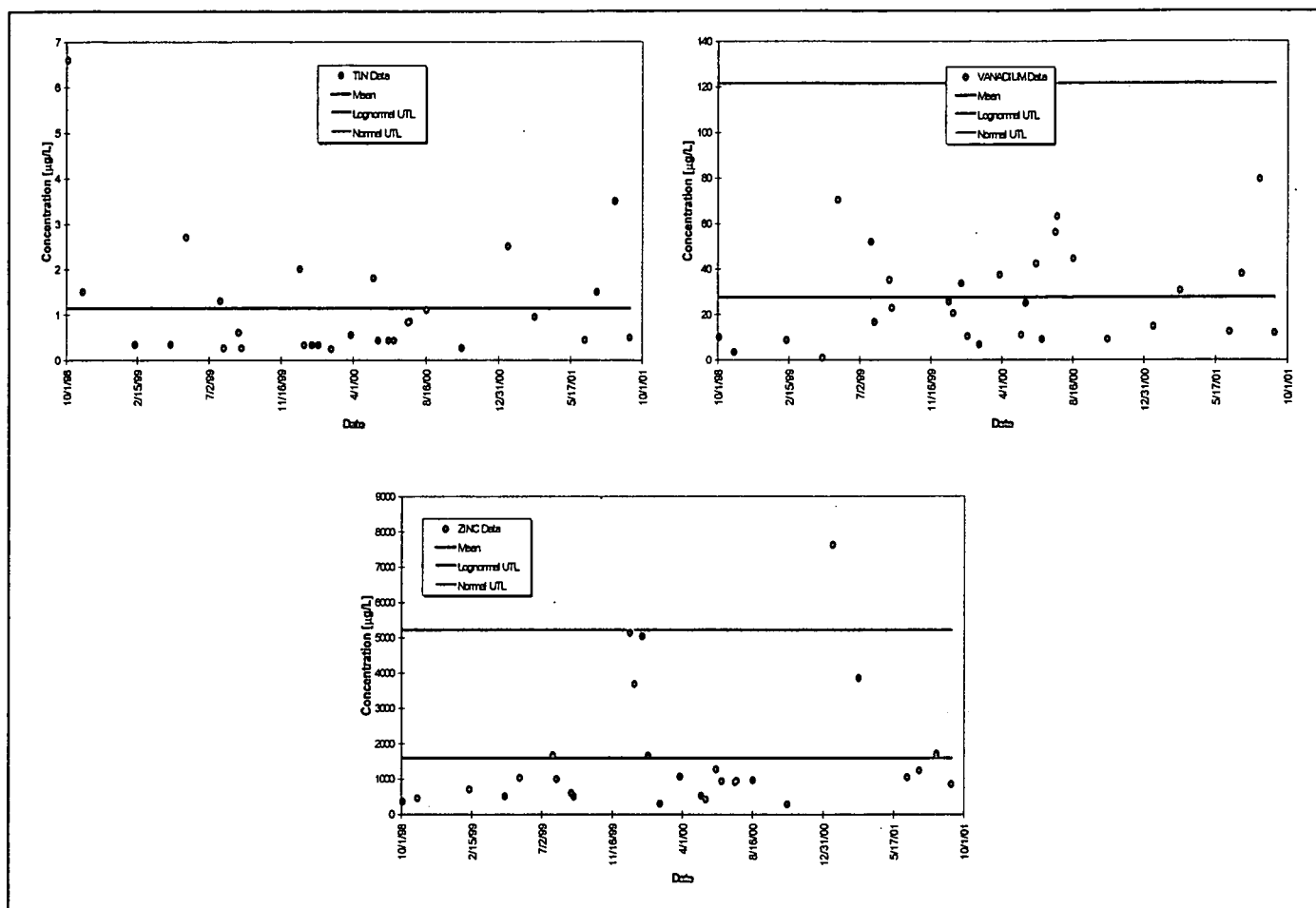


Figure 10-88. Total Metals UTL Plots for GS32: Tin through Zinc.

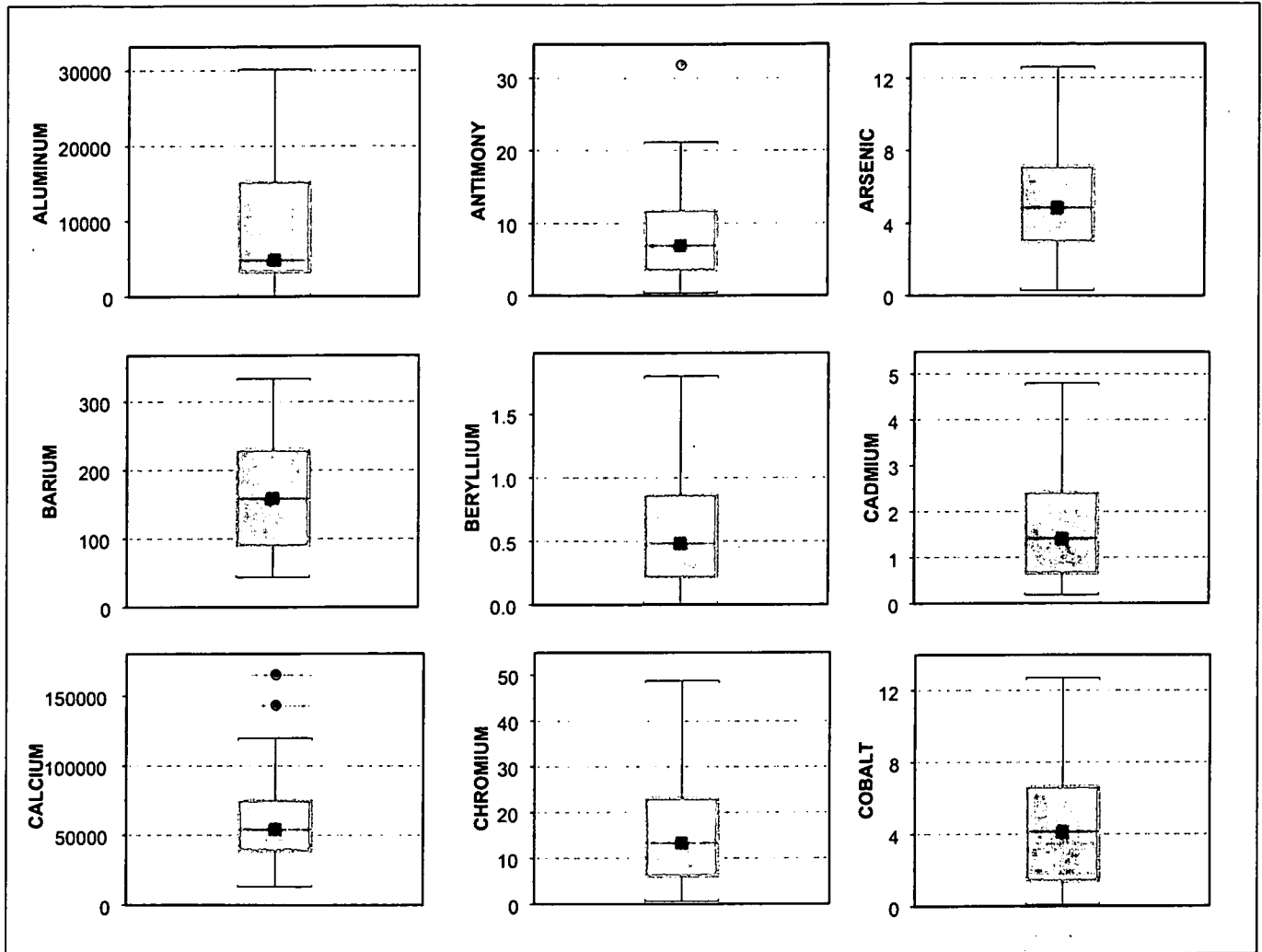


Figure 10-89. Total Metals Box Plots for GS32: Aluminum through Cobalt.

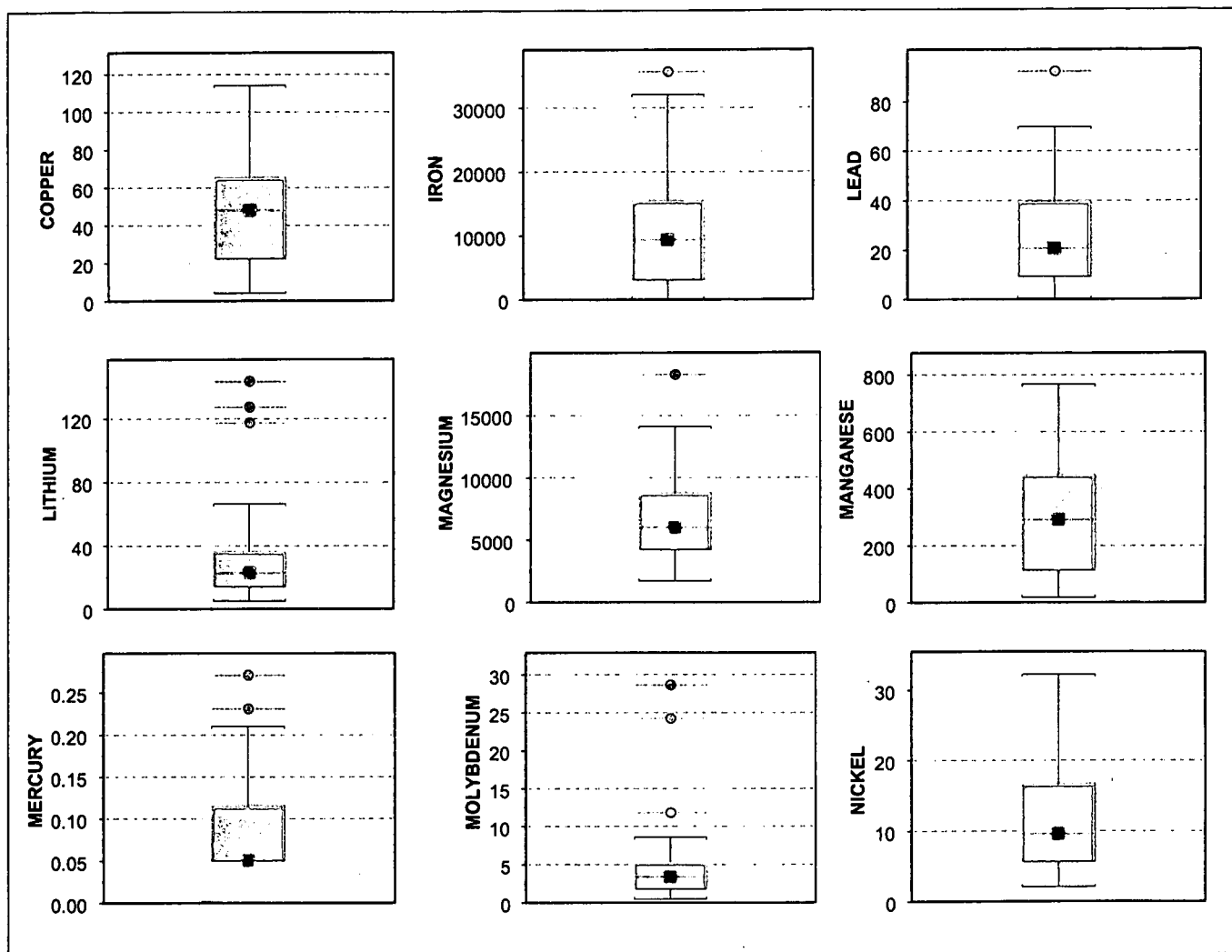


Figure 10-90. Total Metals Box Plots for GS32: Copper through Nickel.

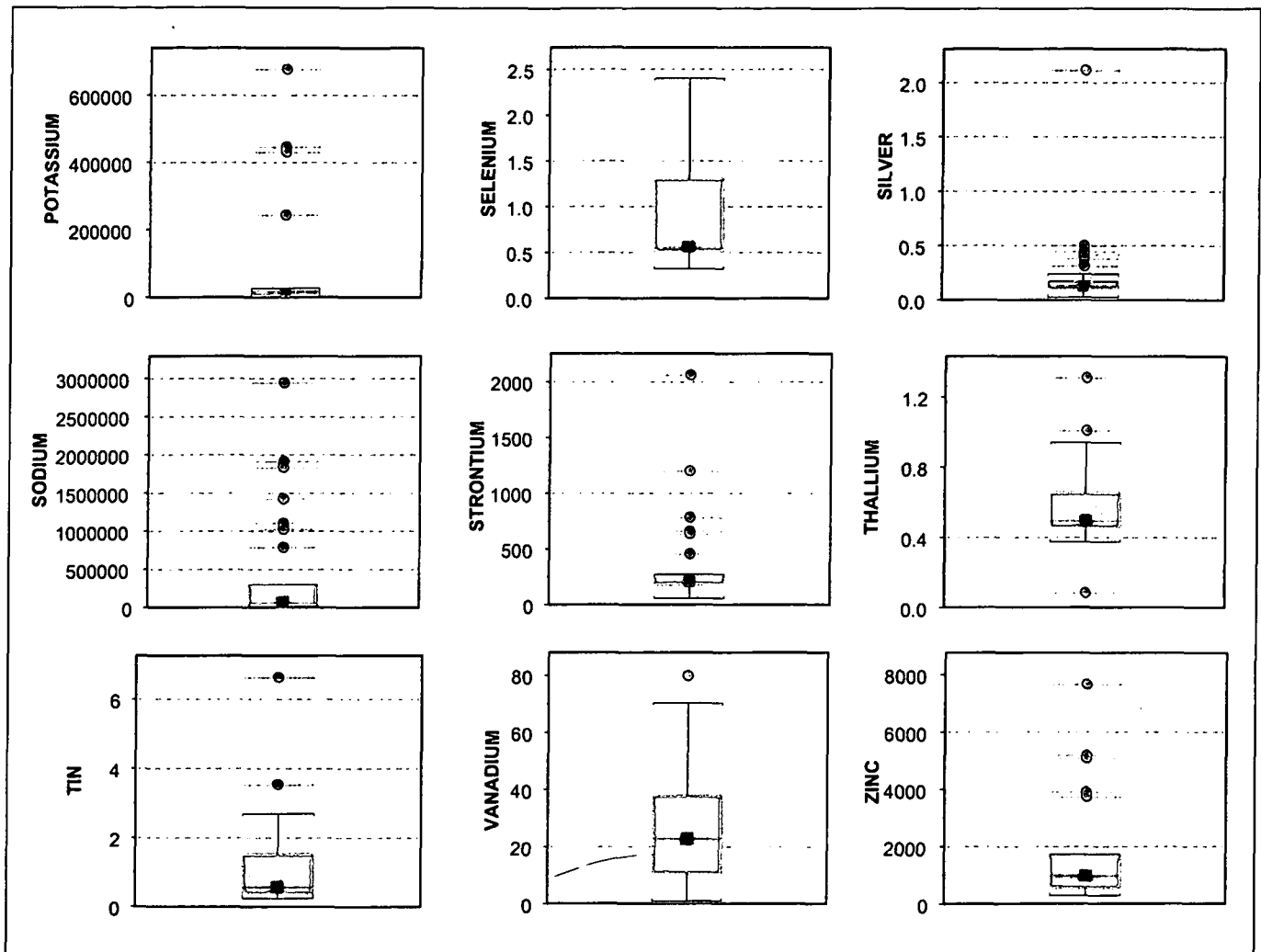


Figure 10-91. Total Metals Box Plots for GS32: Potassium through Zinc.

Monitoring data collected at GS49 show low Pu and Am activities (Table 10-17). Figure 10-92 and Figure 10-93 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu or Am results exceeded the calculated UTL.

Figure 10-94 shows the UTL plot for tritium. During WY99-01, no tritium results exceeded the calculated UTL.

Monitoring data collected at GS49 show low median total uranium activities (Table 10-17). Figure 10-95 shows that none of the total uranium results were greater than the calculated UTL.

The temporal variation of suspended solids activity is not given since no samples were collected within TSS hold time criteria.

Table 10-17. Summary Statistics for Radionuclide Results from GS49 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	0	NA	NA	NA	NA
Pu-239,240	6	0.026	0.043	0.079	0.245 ^a
Am-241	6	0.016	0.040	0.050	0.198 ^a / 0.091 ^b
Tritium	6	8	56	77	459 ^a / 269 ^b
U-233,234	6	0.154	0.260	0.526	1.60 ^a
U-235	6	0.005	0.021	0.050	
U-238	6	0.125	0.265	0.593	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

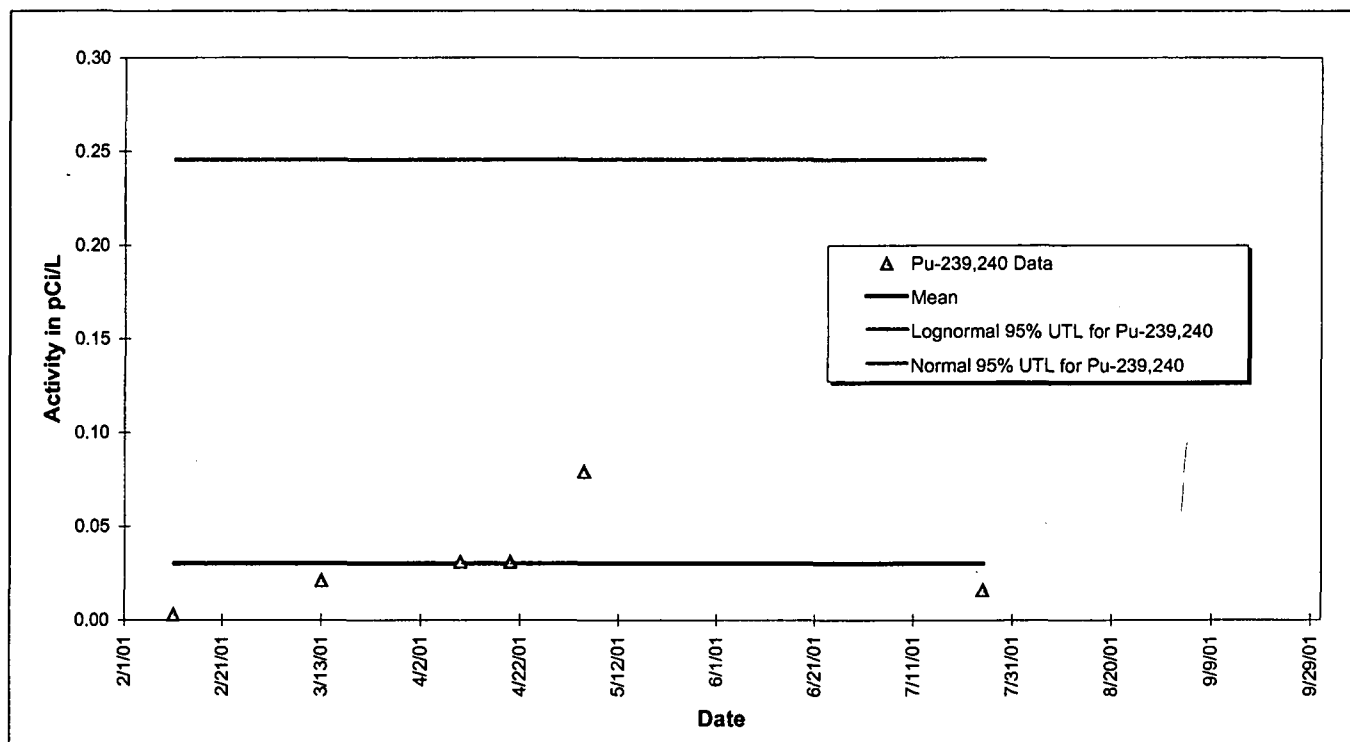


Figure 10-92. 95% UTL Plot for Pu-239,240 at GS49: WY99-01.

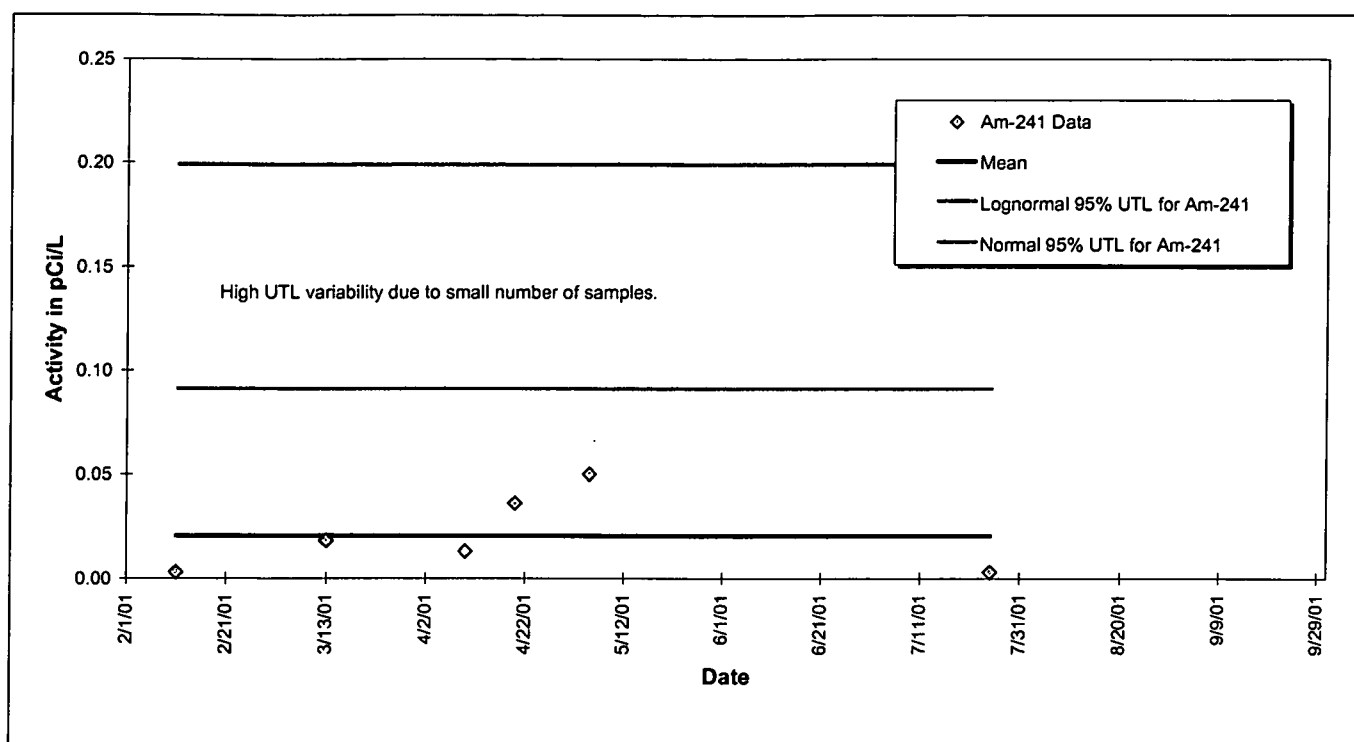


Figure 10-93. 95% UTL Plot for Am-241 at GS49: WY99-01.

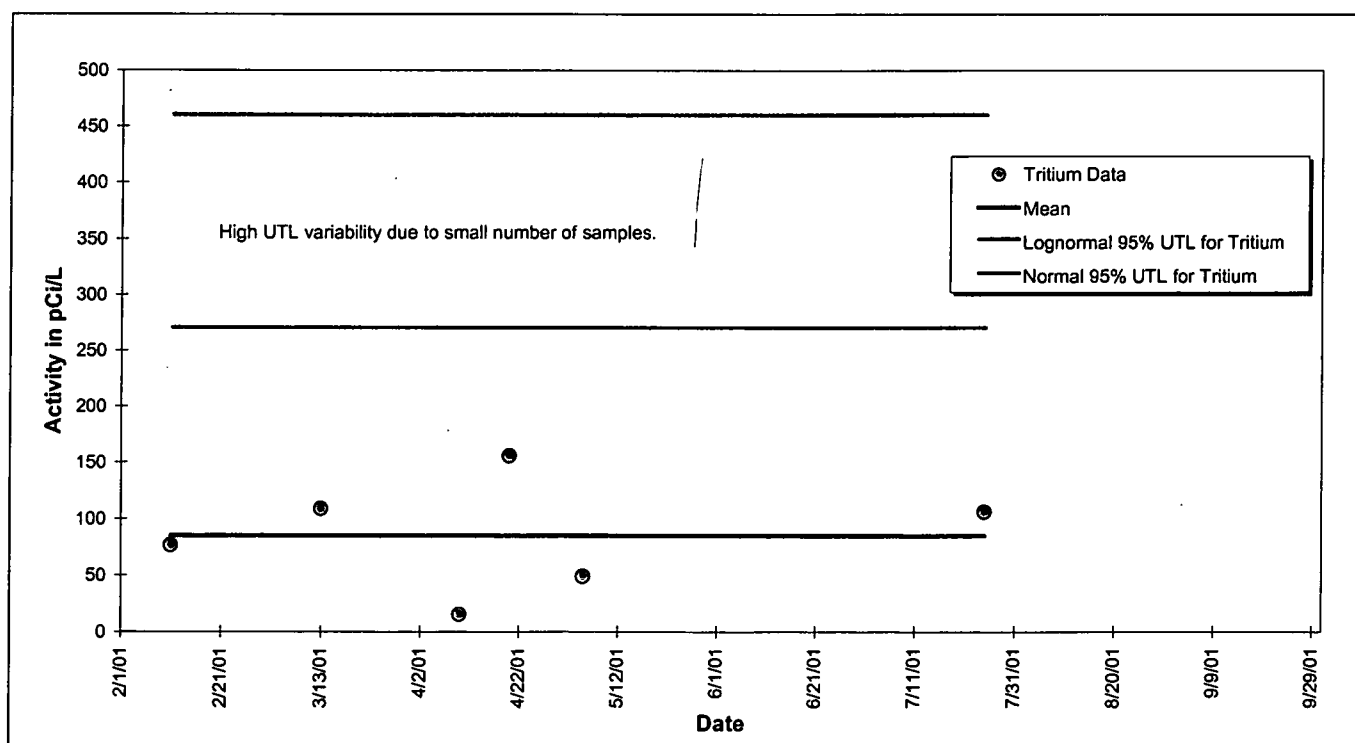


Figure 10-94. 95% UTL Plot for Tritium at GS49: WY99-01.

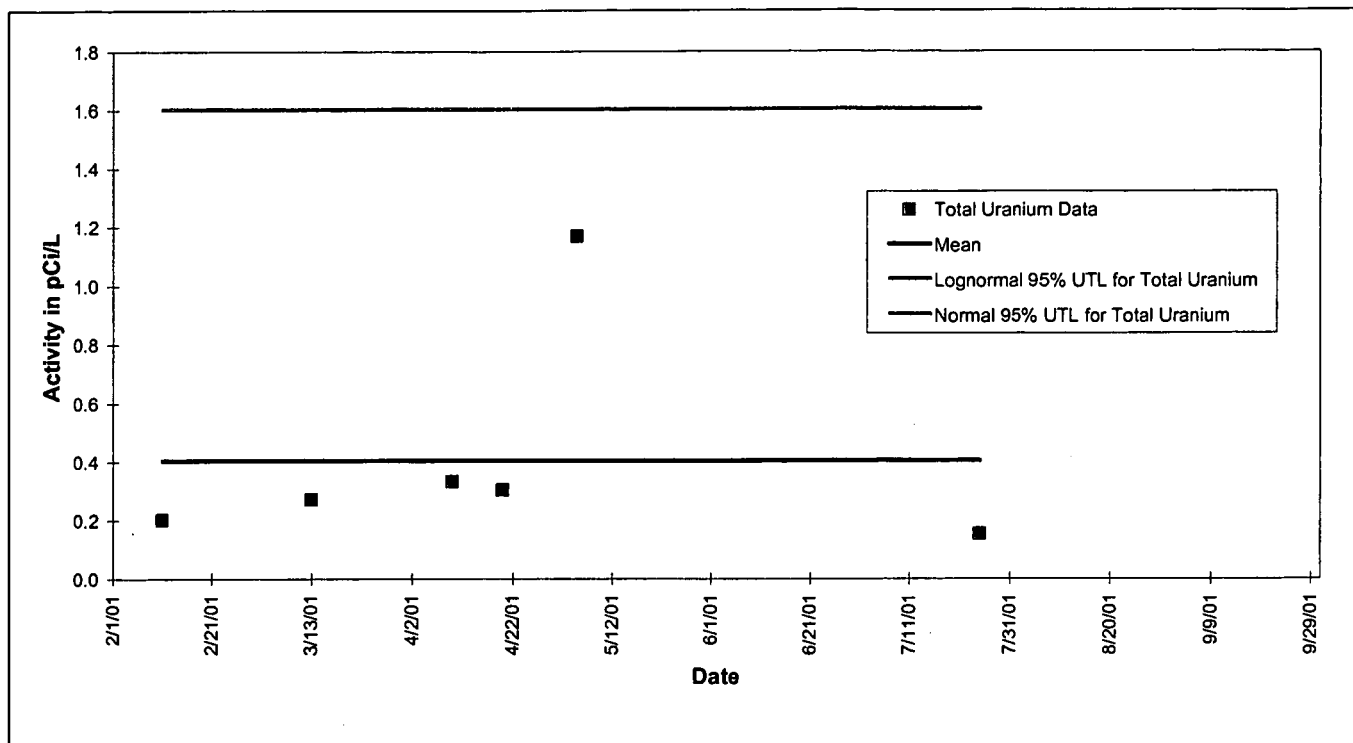


Figure 10-95. 95% UTL Plot for Total Uranium at GS49: WY99-01.

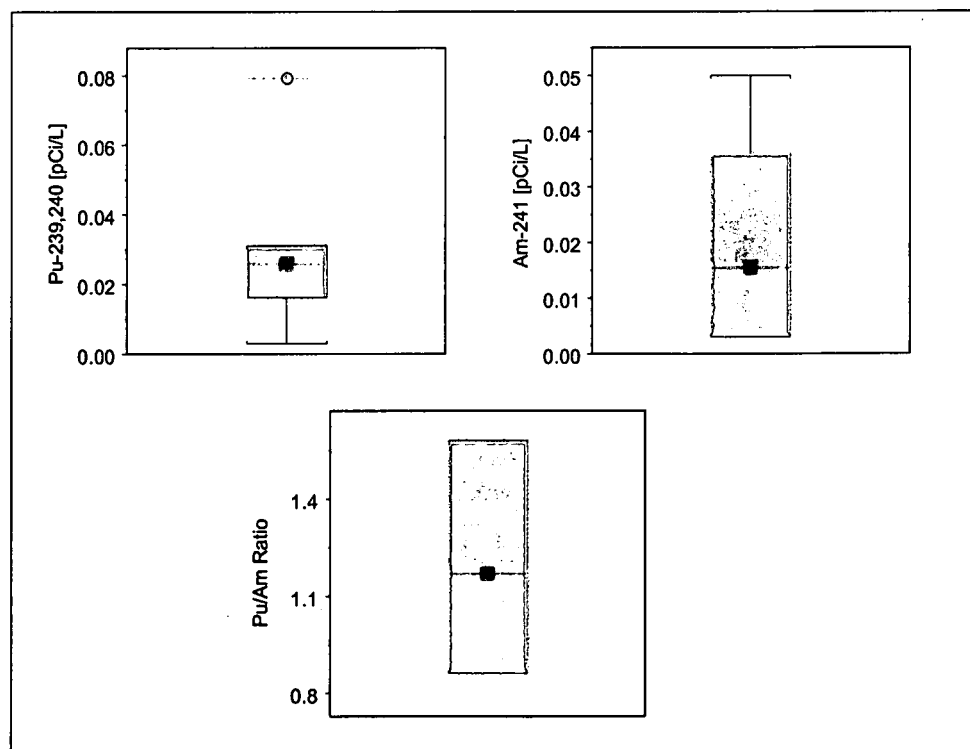


Figure 10-96. Pu and Am Box Plots for GS49: WY99-01.

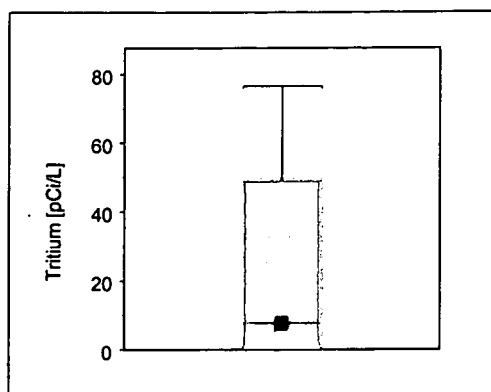


Figure 10-97. Tritium Box Plot for GS49: WY99-01.

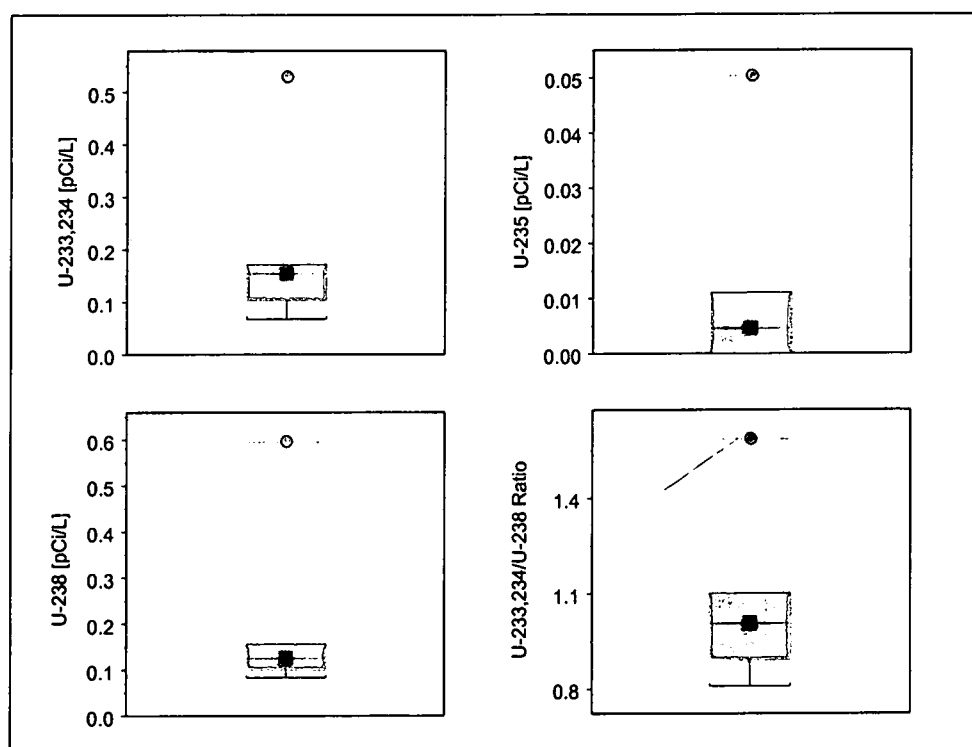


Figure 10-98. Uranium Box Plots for GS49: WY99-01.

Table 10-18 shows the total metals results for samples collected at GS49. Figure 10-99 through Figure 10-103 show the UTL plots for the metals. For the metals with a determined distribution, no results exceeded the calculated UTL.

Data for metals Co, Hg, and Ag had undetermined distributions. All of the Hg and Ag data were 'undetected'. For Co, a single result was indicated as 'suspect' in the box plot (Figure 10-104). The cause of this result is unknown, but subsequent samples showed 'normal' concentrations.

Table 10-18. Summary Statistics for Metals Results from GS49 in WY99-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	6	0.0%	6275	10878	22300	49148 ^a
ANTIMONY	6	33.3%	1.53	2.53	2.90	14.0 ^a
ARSENIC	6	16.7%	2.90	5.28	10.0	27.8 ^a
BARIUM	6	0.0%	46.7	140	149	553 ^a
BERYLLIUM	6	0.0%	0.33	0.55	1.10	2.09 ^a
CADMIUM	6	33.3%	0.16	0.31	0.68	1.49 ^a
CALCIUM	6	0.0%	9275	18775	35500	47066 ^a
CHROMIUM	6	0.0%	6.85	11.8	24.0	36.4 ^a
COBALT	6	0.0%	0.99	2.65	6.70	^c
COPPER	6	0.0%	24.1	33.1	45.1	170 ^a
IRON	6	0.0%	4335	8713	19700	30328 ^a
LEAD	6	0.0%	4.05	8.90	19.4	27.8 ^a
LITHIUM	6	0.0%	6.30	11.3	16.7	31.7 ^a
MAGNESIUM	6	0.0%	1890	4648	4700	10424 ^a
MANGANESE	6	0.0%	53.2	155	295	418 ^a
MERCURY	6	100.0%	0.05	0.05	0.05	^c
MOLYBDENUM	6	16.7%	0.68	0.80	0.88	1.58 ^b
NICKEL	6	0.0%	5.60	9.30	19.2	26.5 ^a
POTASSIUM	6	0.0%	3025	5765	6290	25780 ^a
SELENIUM	6	50.0%	0.61	1.85	2.30	5.32 ^a
SILVER	6	100.0%	0.13	0.13	0.13	^c
SODIUM	6	0.0%	53050	110025	240000	10499455 ^a
STRONTIUM	6	0.0%	42.3	86.3	162	318 ^a
THALLIUM	6	83.3%	0.49	0.56	0.78	0.99 ^a
TIN	6	50.0%	0.63	1.22	2.10	3.40 ^a
VANADIUM	6	0.0%	11.2	21.5	47.1	138 ^a
ZINC	6	0.0%	196	326	552	2994 ^a

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

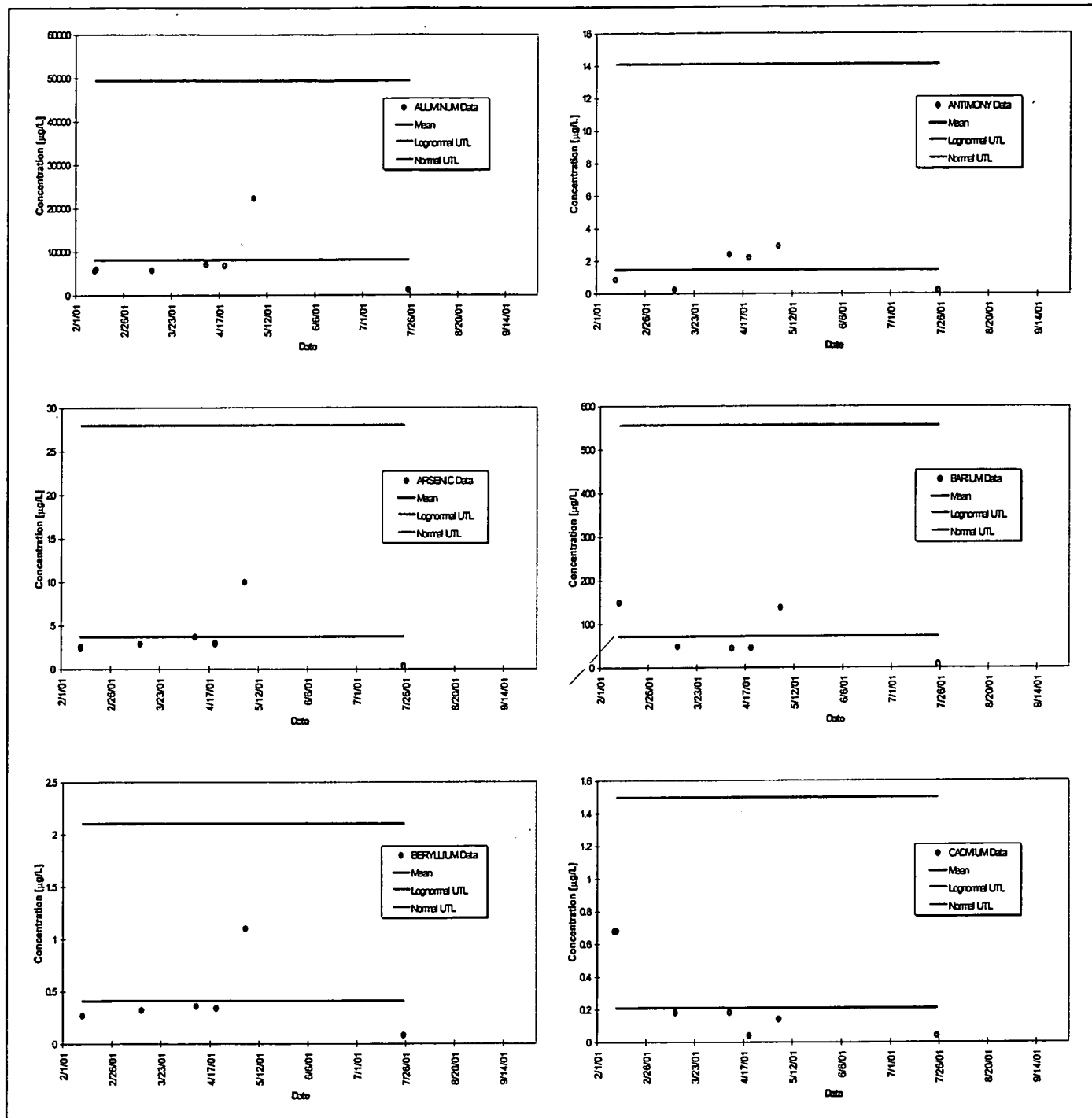


Figure 10-99. Total Metals UTL Plots for GS49: Aluminum through Cadmium.

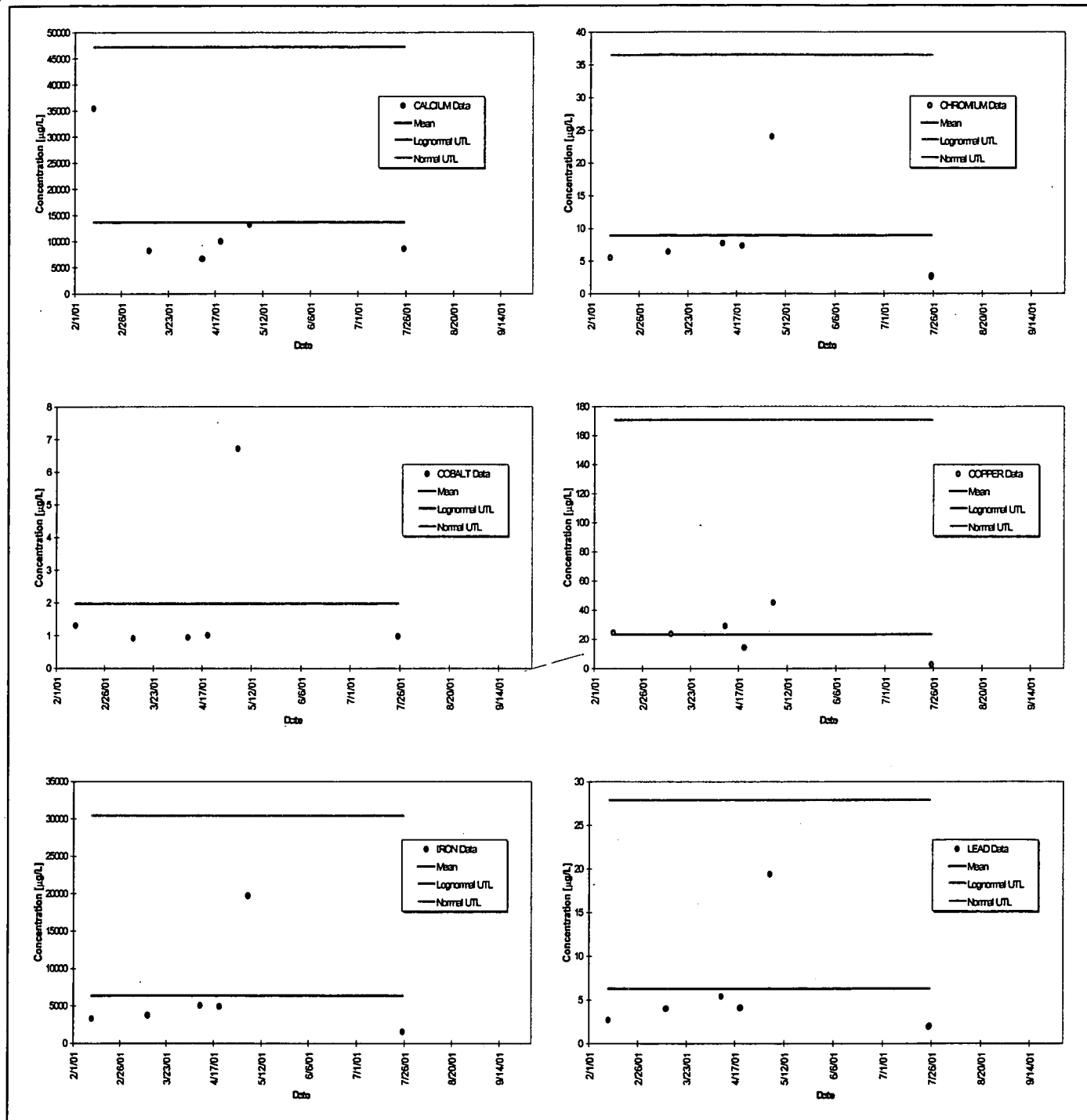


Figure 10-100. Total Metals UTL Plots for GS49: Calcium through Lead.

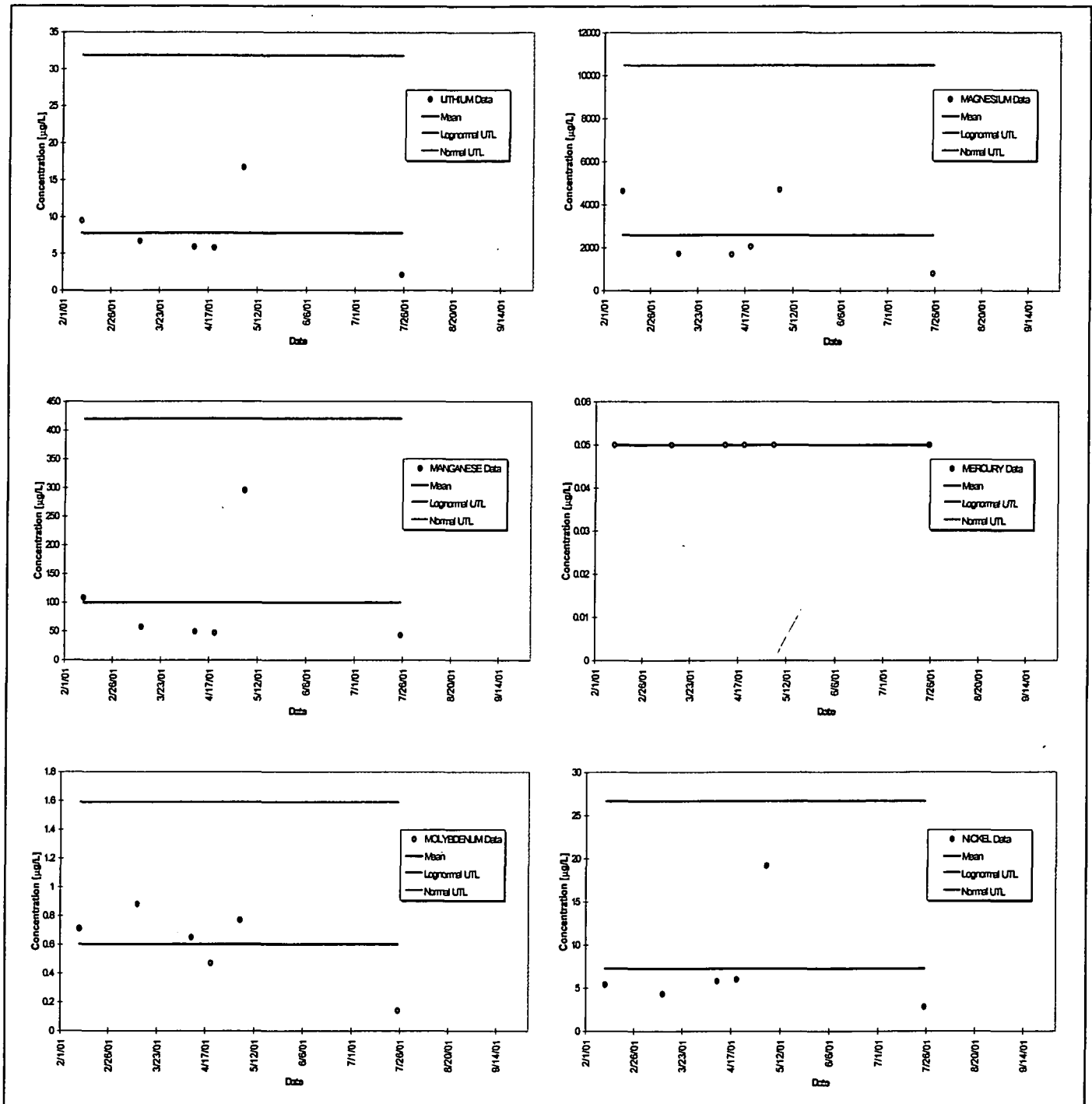


Figure 10-101. Total Metals UTL Plots for GS49: Lithium through Nickel.

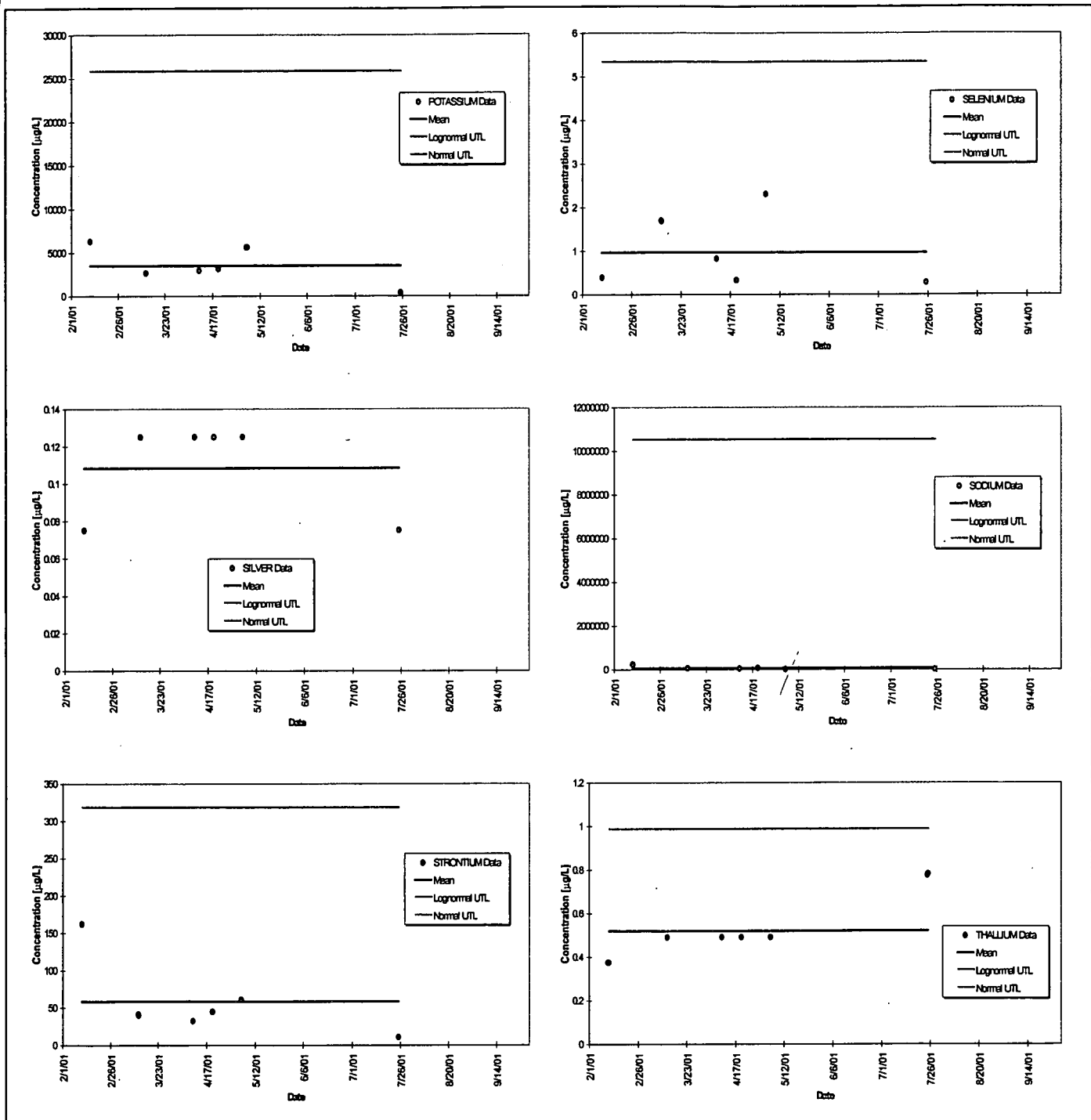


Figure 10-102. Total Metals UTL Plots for GS49: Potassium through Thallium.

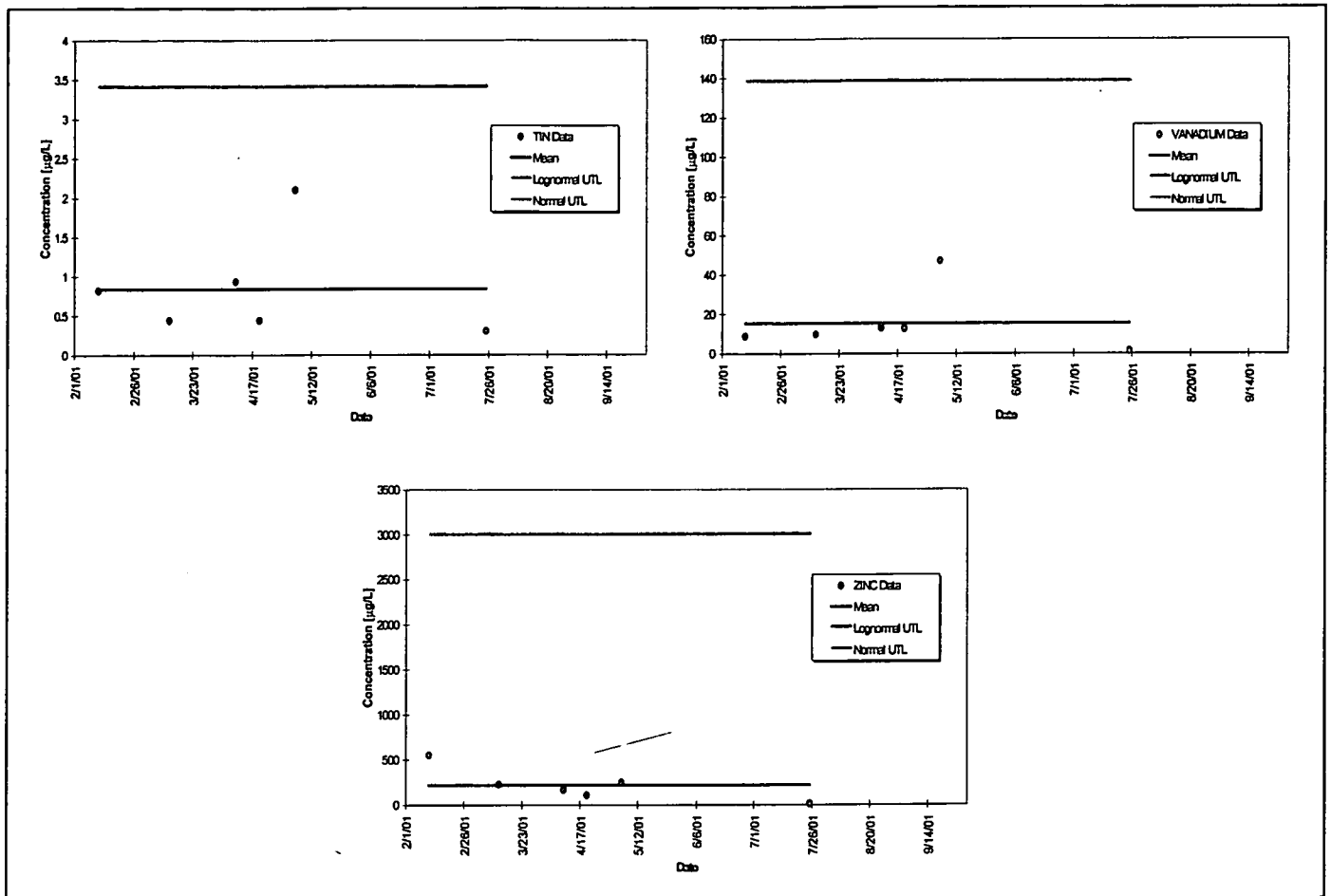


Figure 10-103. Total Metals UTL Plots for GS49: Tin through Zinc.

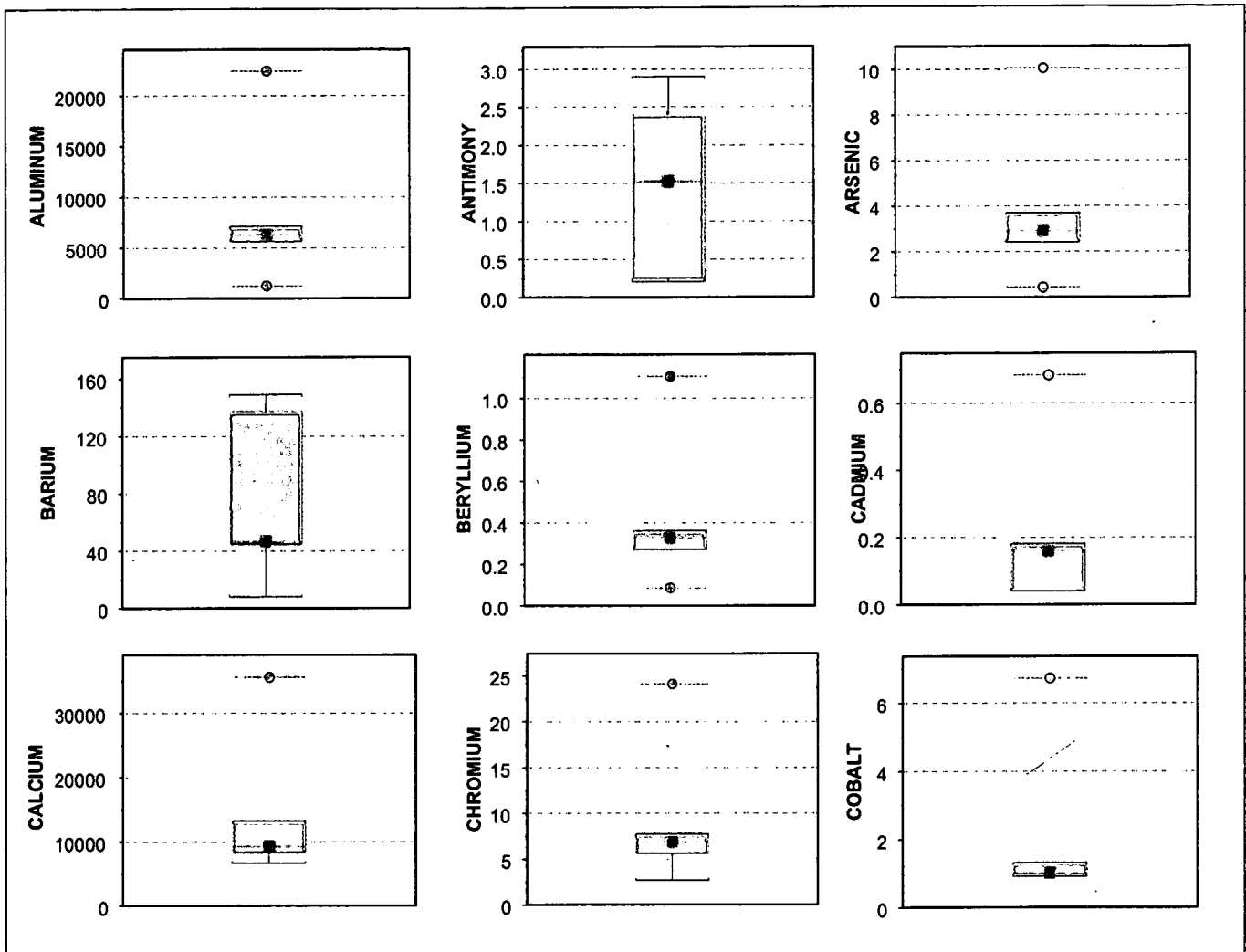


Figure 10-104. Total Metals Box Plots for GS49: Aluminum through Cobalt.

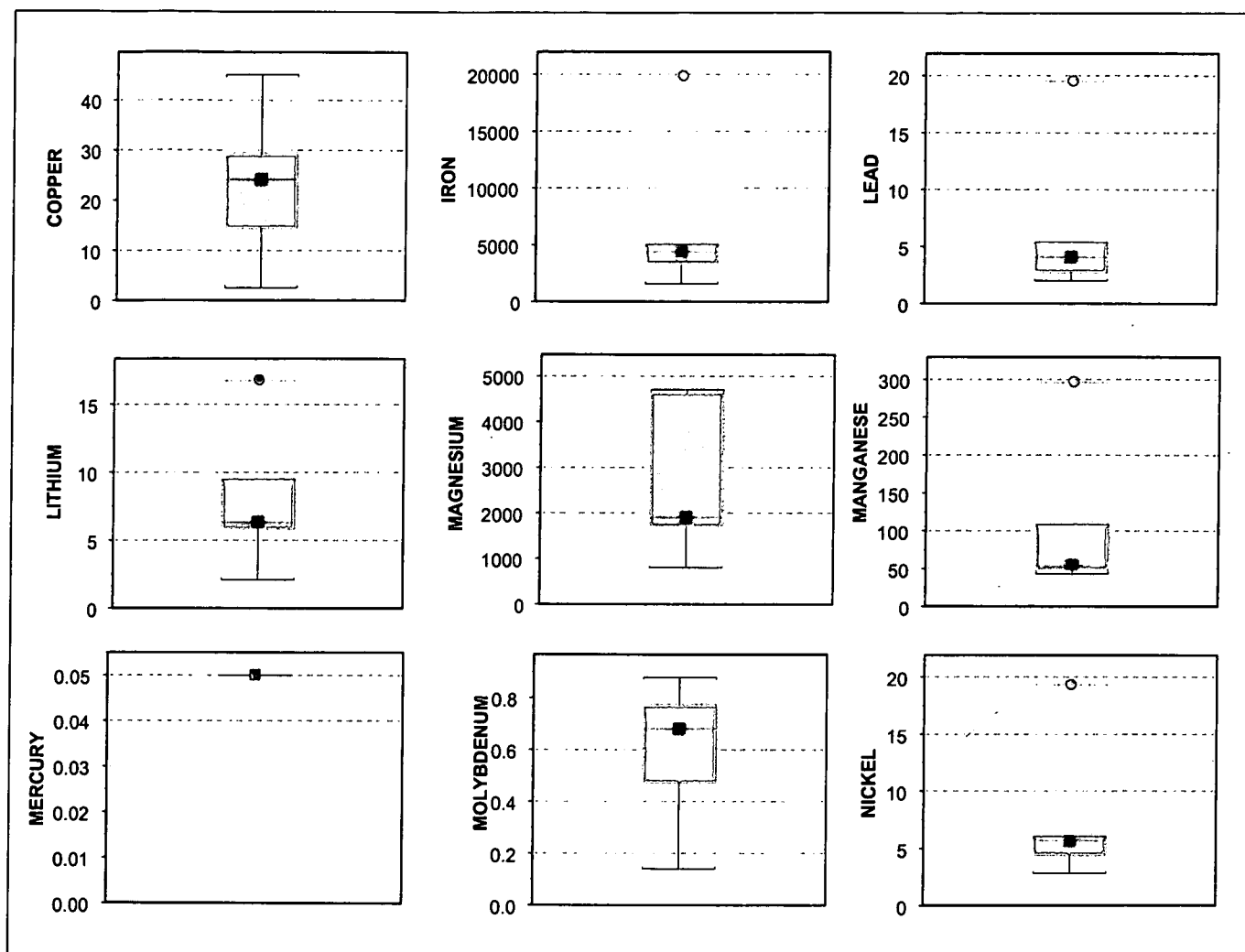


Figure 10-105. Total Metals Box Plots for GS49: Copper through Nickel.

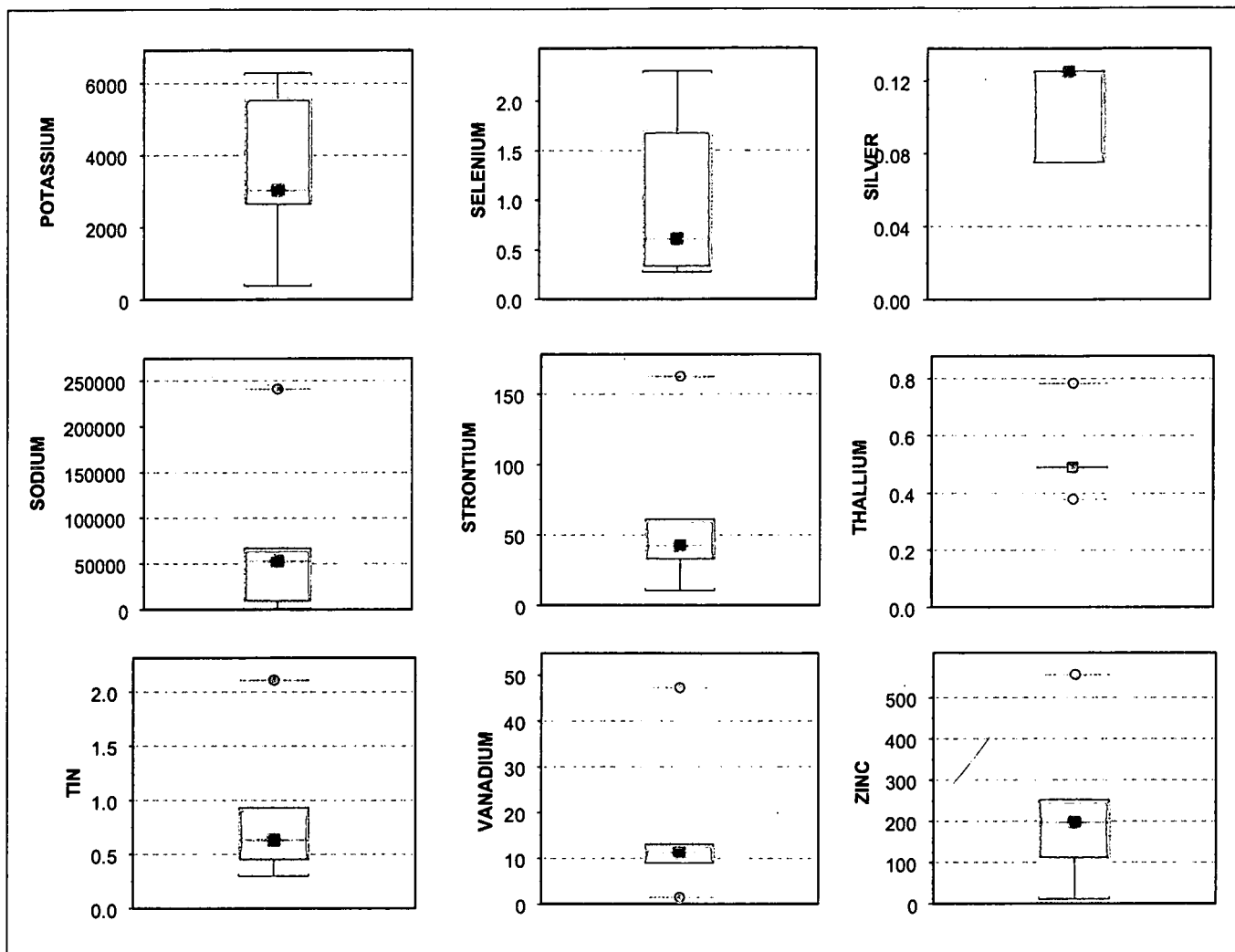


Figure 10-106. Total Metals Box Plots for GS49: Potassium through Zinc.

10.3.7 Solar Ponds Accelerated Actions

Monitoring location GS32 was originally installed on 1/31/97 in support of the D&D of Building 779, and remains to support the Accelerated Actions for the Solar Ponds. GS50, originally installed in support of the GS10 Source Evaluation effort on 3/28/01, also supports the Accelerated Actions for the Solar Ponds. Data from SW091, a permanent NSD location, is also used to support the Solar Ponds. SW119 was installed on 4/4/01 in support of the Solar Ponds. Finally, SW120, originally installed on 3/14/00 in support of the D&D of Building 771, also supports the Solar Ponds. Figure 10-107 shows the drainage areas for the above locations.

Monitoring data for GS32 was previously presented in Section 10.3.6. Monitoring data for SW120 was previously presented in Section 10.3.5.

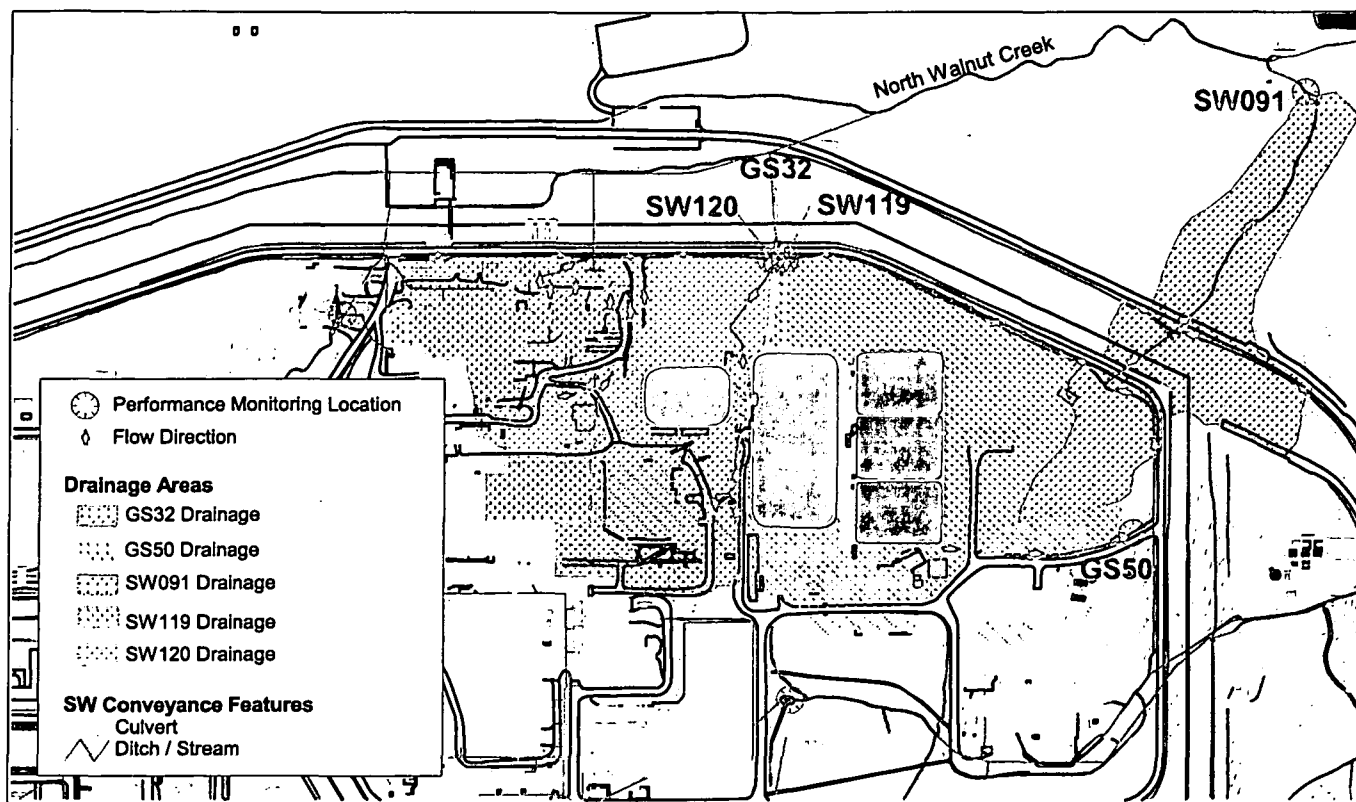


Figure 10-107. Performance Monitoring Drainage Areas for the Solar Ponds.

Monitoring data collected at GS50 have somewhat higher Pu and Am activities than for other automated monitoring locations (Table 10-19). Figure 10-108 and Figure 10-109 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu or Am results exceeded the calculated UTL. Figure 10-111 also shows a significantly lower Pu/Am ratio than expected. This is likely due to the proximity of GS50 to the Solar Ponds.

Monitoring data collected at GS50 show low median total uranium activities (Table 10-19). Figure 10-110 shows that none of the total uranium results were greater than the calculated UTL.

The temporal variation of suspended solids activity is not given since no samples were collected within TSS hold time criteria.

Table 10-19. Summary Statistics for Radionuclide Results from GS50 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	0	NA	NA	NA	NA
Pu-239,240	4	0.122	0.212	0.225	1.861 ^a
Am-241	4	0.159	0.324	0.442	1.092 ^a / 1.022 ^b
U-233,234	4	0.135	0.194	0.224	0.942 ^a / 0.895 ^b
U-235	4	0.004	0.011	0.015	
U-238	4	0.137	0.198	0.211	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

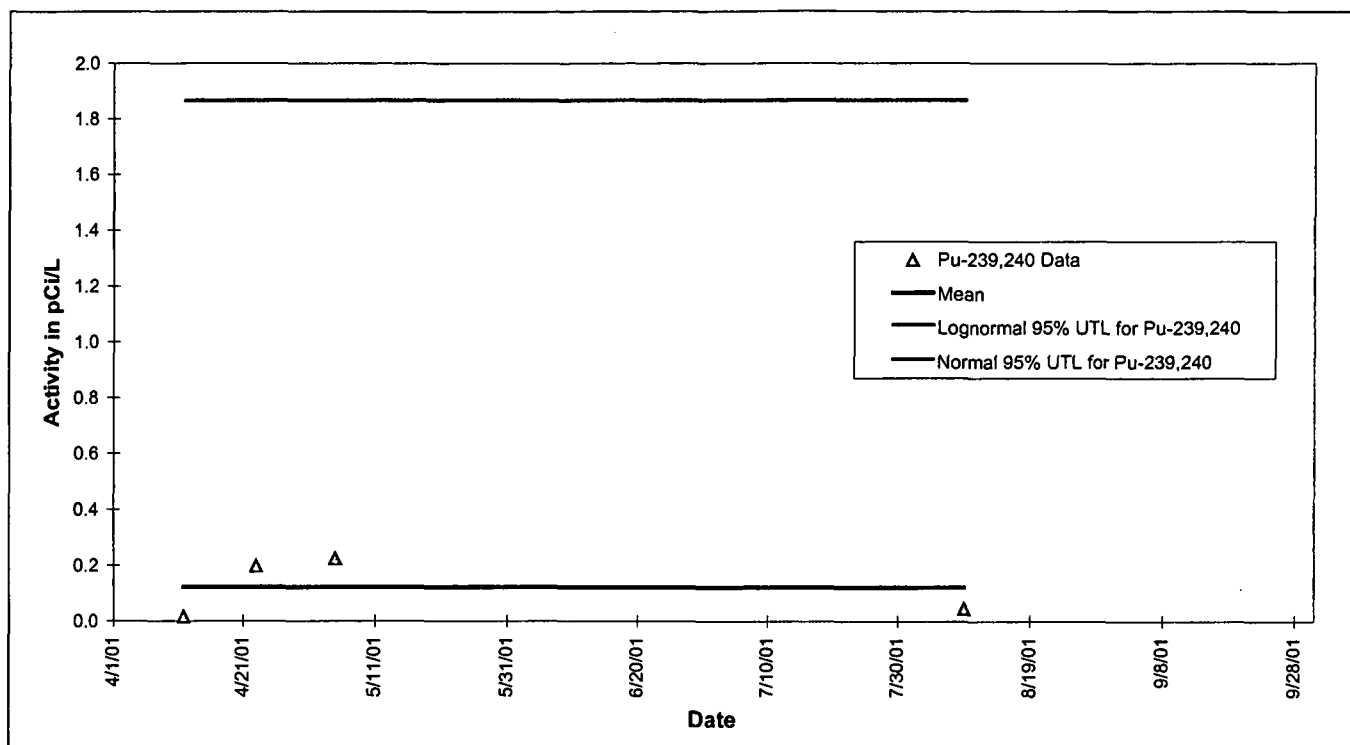


Figure 10-108. 95% UTL Plot for Pu-239,240 at GS50: WY99-01.

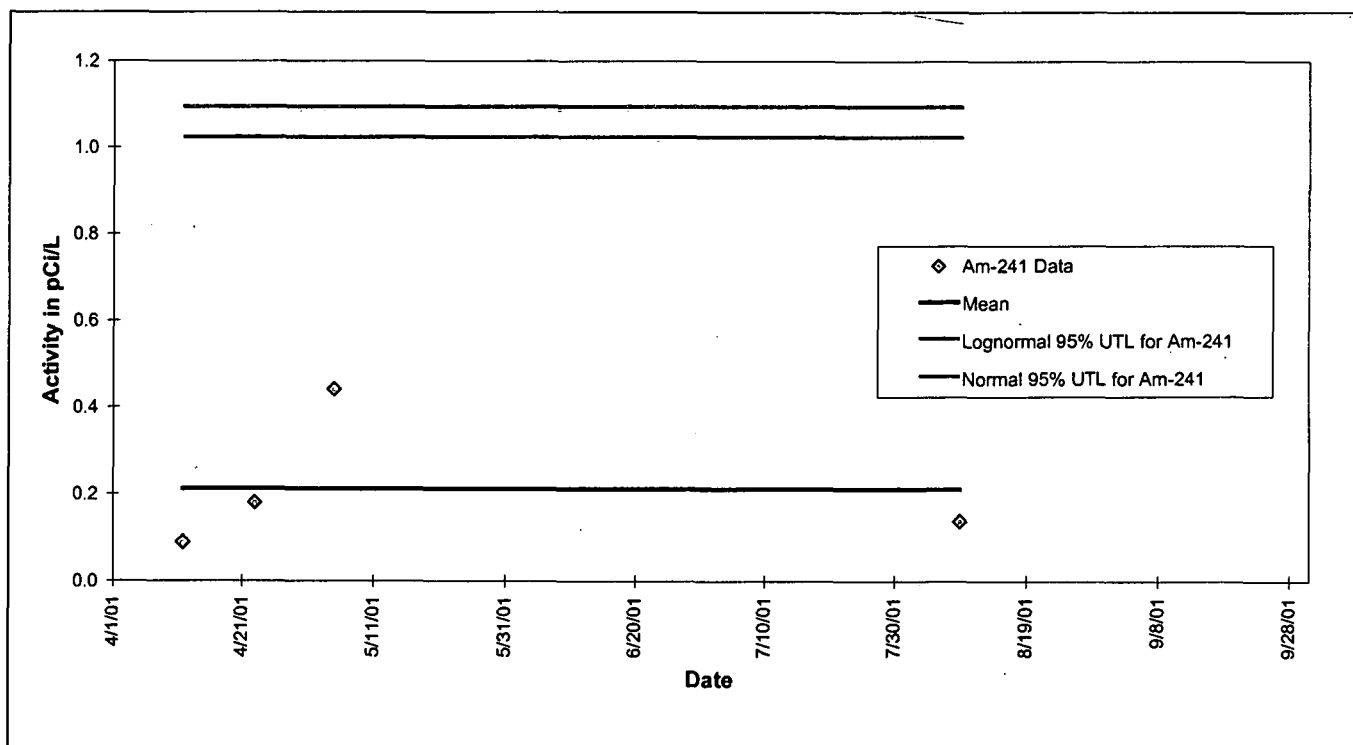


Figure 10-109. 95% UTL Plot for Am-241 at GS50: WY99-01.

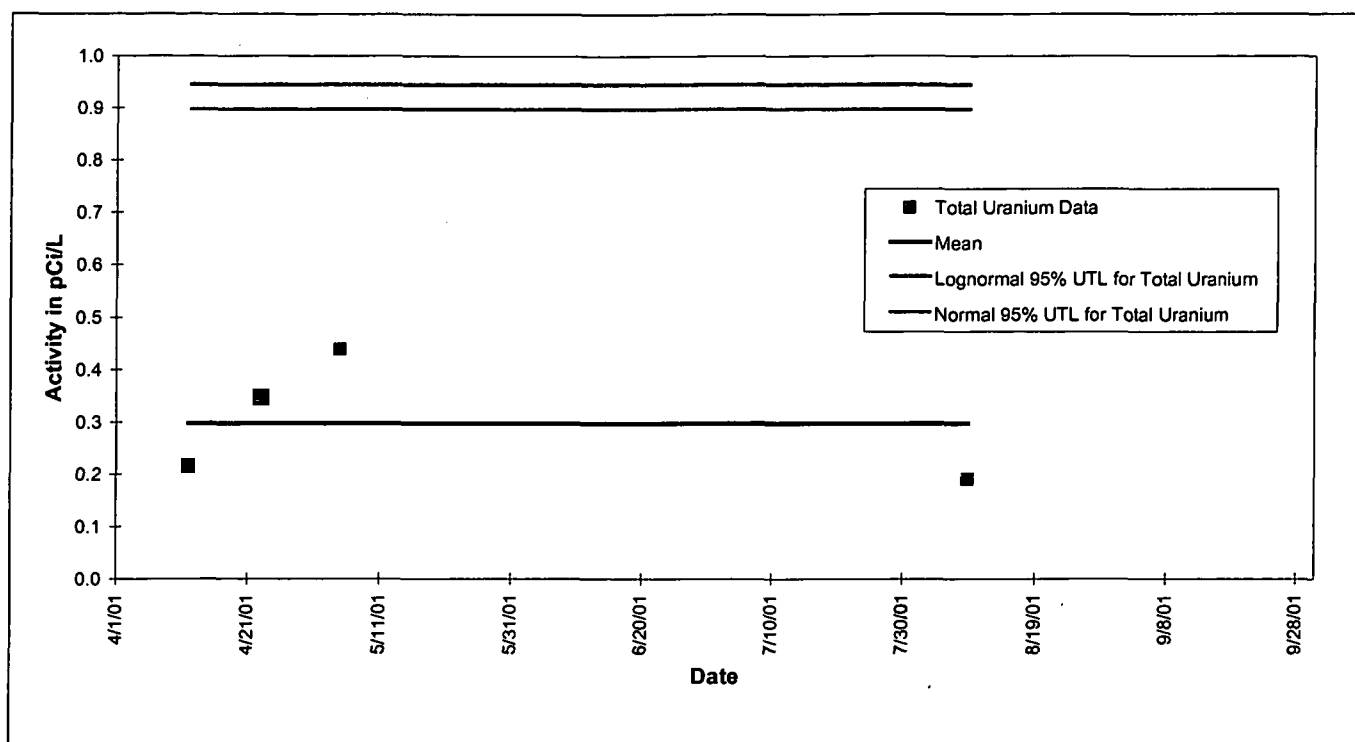


Figure 10-110. 95% UTL Plot for Total Uranium at GS50: WY99-01.

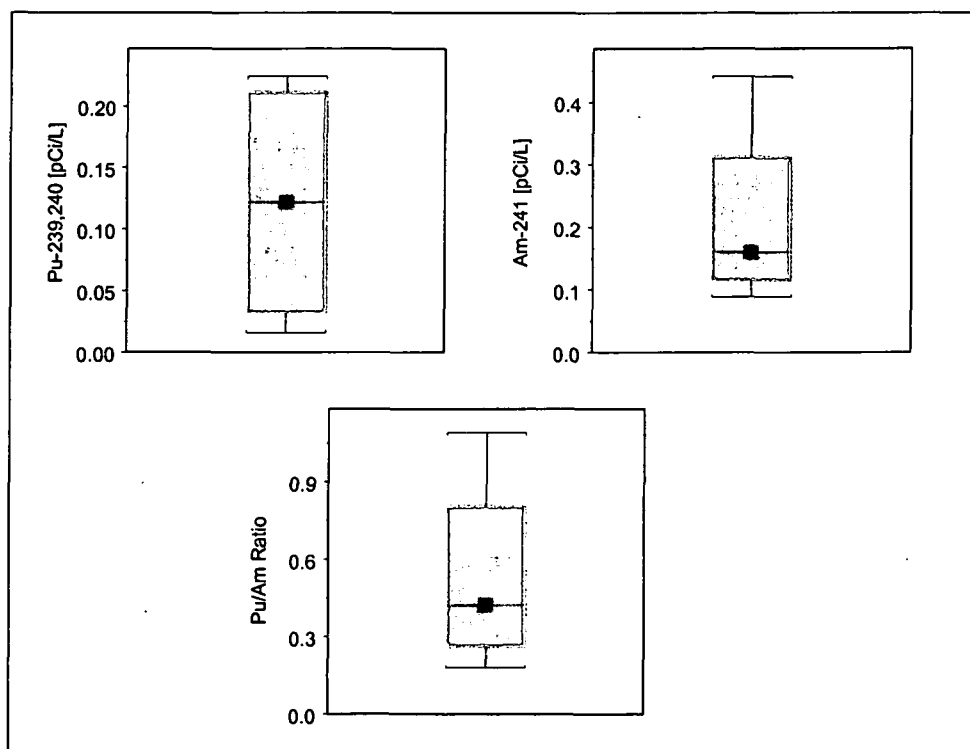


Figure 10-111. Pu and Am Box Plots for GS50: WY99-01.

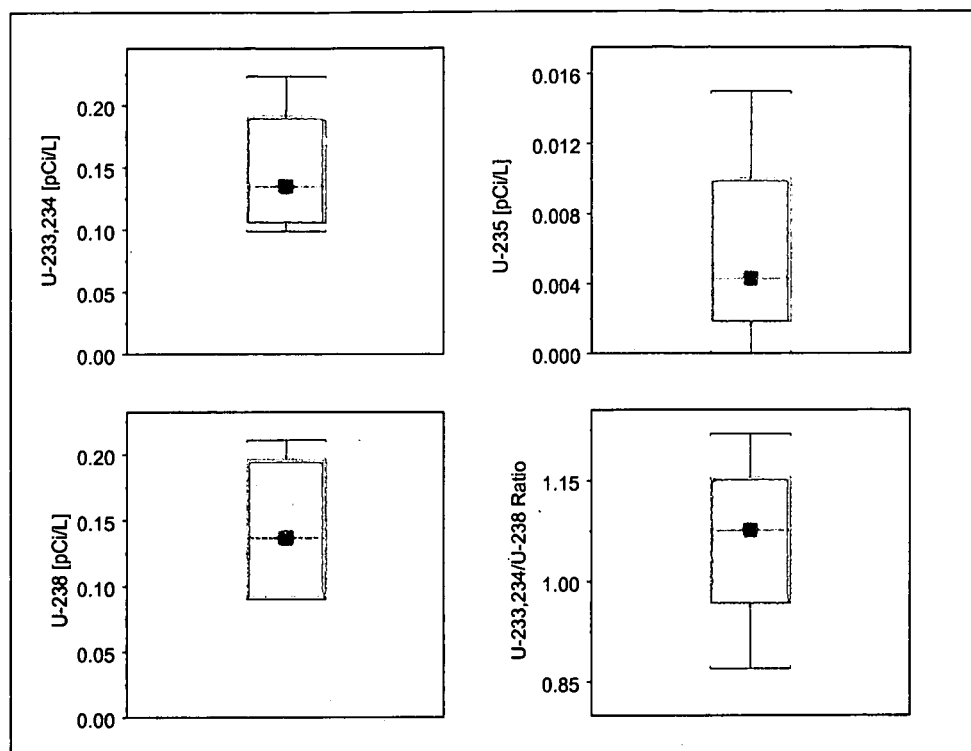


Figure 10-112. Uranium Box Plots for GS50: WY99-01.

Table 10-20 shows the total metals results for samples collected at GS50. Figure 10-113 through Figure 10-117 show the UTL plots for the metals. Although there were few data points, for the metals with a determined distribution, no results exceeded the calculated UTL.

Mercury was the only metal with an undetermined distribution. However, all of the results were 'undetected'.

Metals box plots are not presented due to the small number of data points.

Table 10-20. Summary Statistics for Metals Results from GS50 in WY99-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	4	0.0%	2540	5827	8025	24383 ^a
ANTIMONY	4	0.0%	1.30	1.54	1.65	4.00 ^a
ARSENIC	4	0.0%	2.10	3.63	4.80	11.1 ^a
BARIUM	4	0.0%	51.7	72.9	77.1	210 ^a
BERYLLIUM	4	0.0%	0.13	0.24	0.31	0.79 ^a
CADMIUM	4	0.0%	0.18	0.48	0.72	1.85 ^a
CALCIUM	4	0.0%	15125	28493	38100	84303 ^a
CHROMIUM	4	0.0%	3.95	6.71	8.35	25.2 ^a
COBALT	4	25.0%	0.54	1.49	2.25	12.9 ^a
COPPER	4	0.0%	6.40	12.7	17.5	38.9 ^a
IRON	4	0.0%	1865	4655	6565	21867 ^a
LEAD	4	0.0%	13.9	16.9	17.0	59.3 ^a
LITHIUM	4	0.0%	4.64	6.56	6.95	19.3 ^a
MAGNESIUM	4	0.0%	2068	3127	3660	8118 ^a
MANGANESE	4	0.0%	22.2	70.1	106	336 ^a
MERCURY	4	100.0%	0.05	0.05	0.05	^c
MOLYBDENUM	4	0.0%	0.87	1.01	1.10	2.04 ^a
NICKEL	4	0.0%	2.45	4.87	6.65	16.7 ^a
POTASSIUM	4	0.0%	5065	6349	7305	12540 ^a
SELENIUM	4	75.0%	0.38	0.82	1.13	2.46 ^a
SILVER	4	100.0%	0.13	0.19	0.24	0.59 ^a
SODIUM	4	0.0%	12895	112890	192000	1171593 ^a
STRONTIUM	4	0.0%	54.3	101	134	298 ^a
THALLIUM	4	75.0%	0.49	1.05	1.50	3.26 ^a
TIN	4	100.0%	0.44	0.70	0.92	1.72 ^a
VANADIUM	4	0.0%	6.10	13.9	19.5	58.9 ^a
ZINC	4	0.0%	25.2	61.7	89.6	207 ^a

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

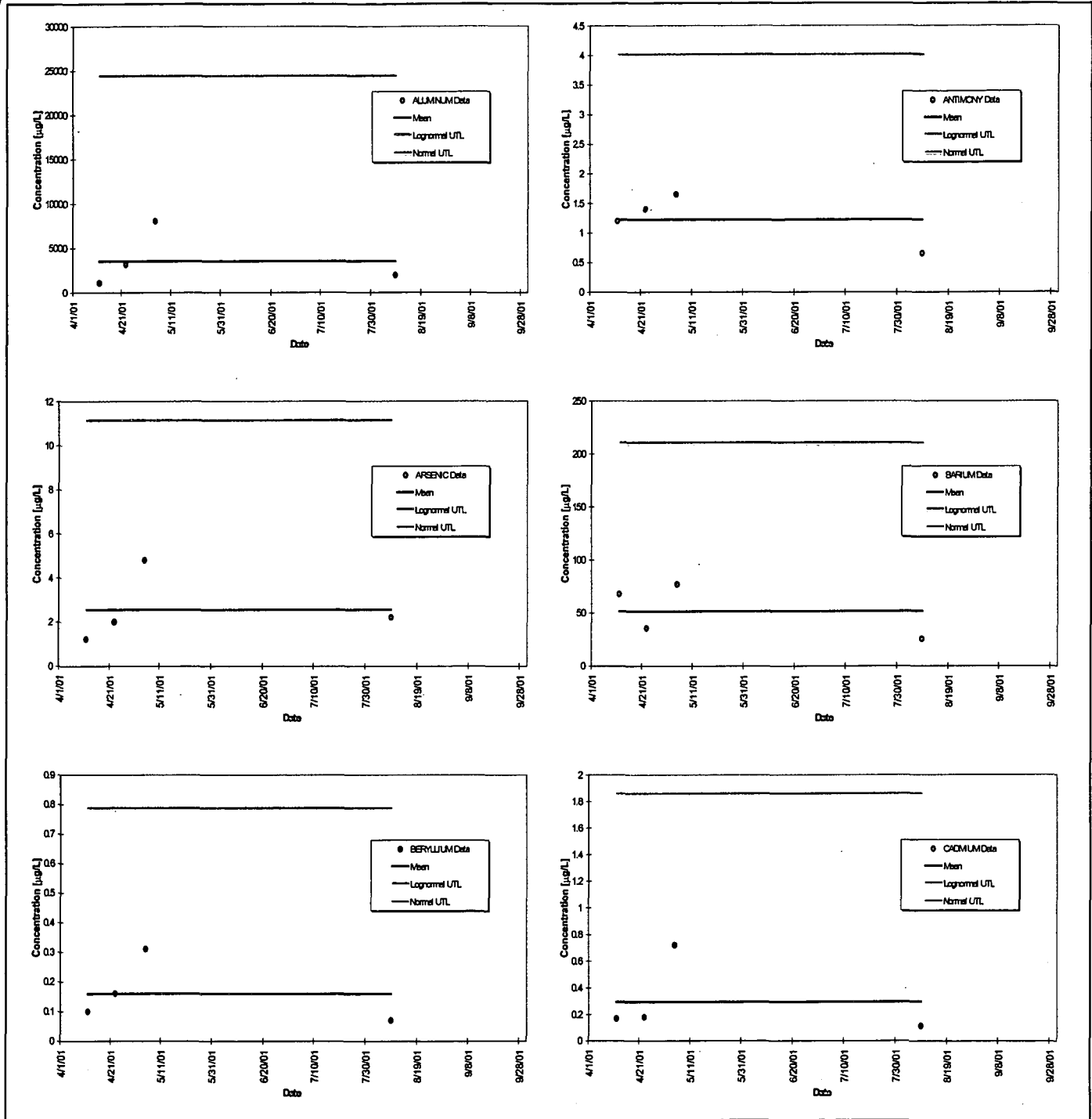


Figure 10-113. Total Metals UTL Plots for GS50: Aluminum through Cadmium.

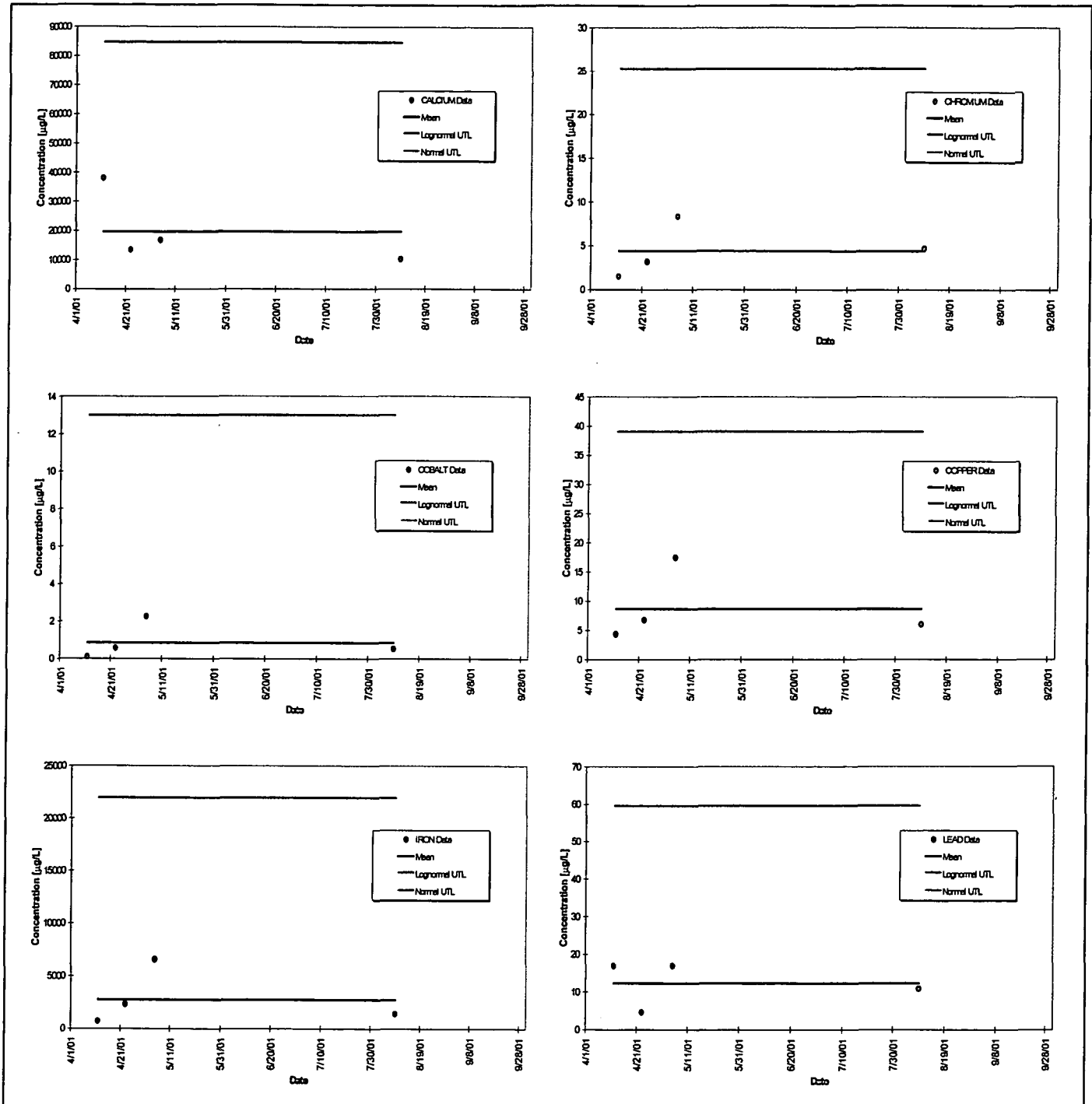


Figure 10-114. Total Metals UTL Plots for GS50: Calcium through Lead.

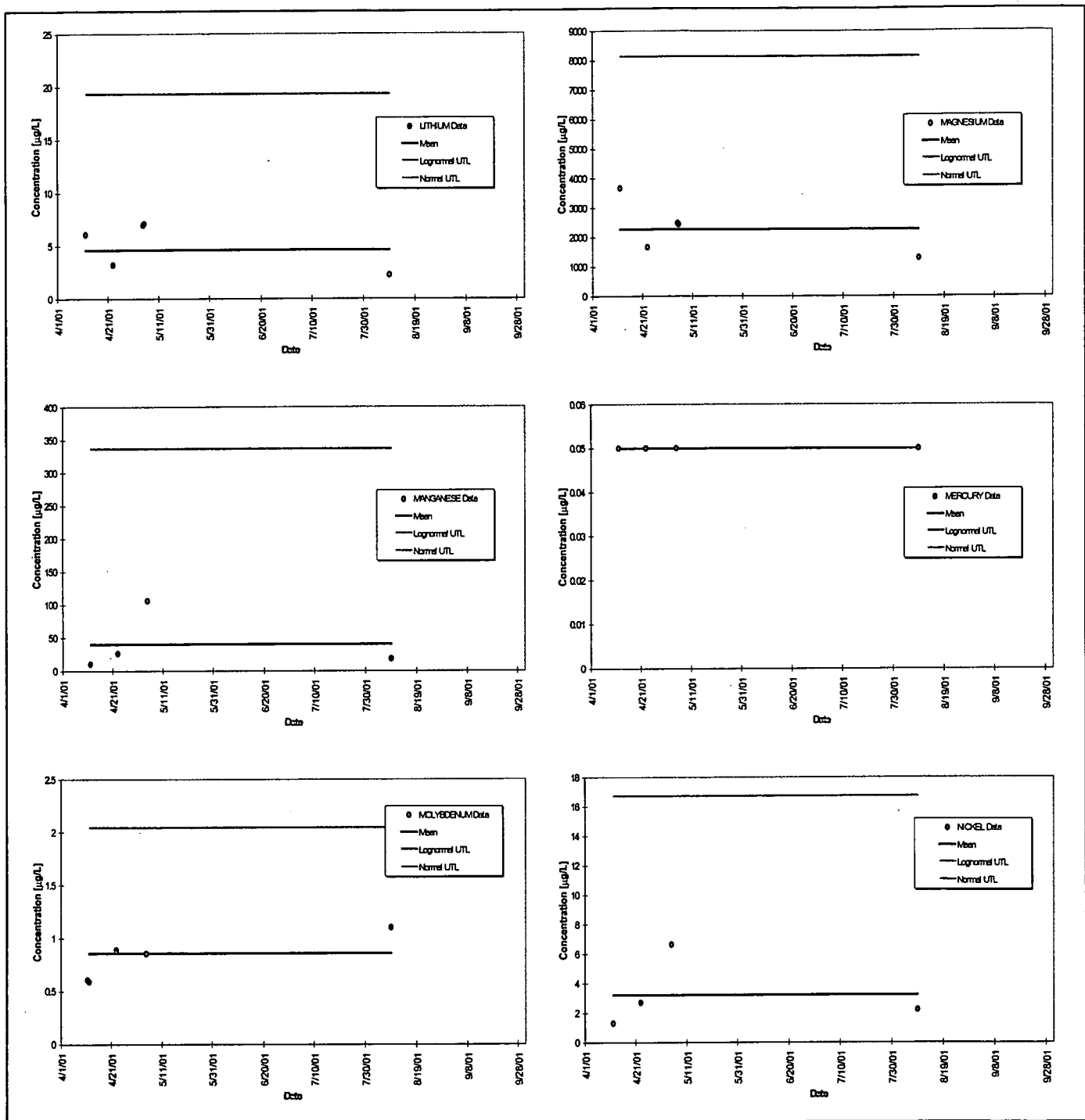


Figure 10-115. Total Metals UTL Plots for GS50: Lithium through Nickel.

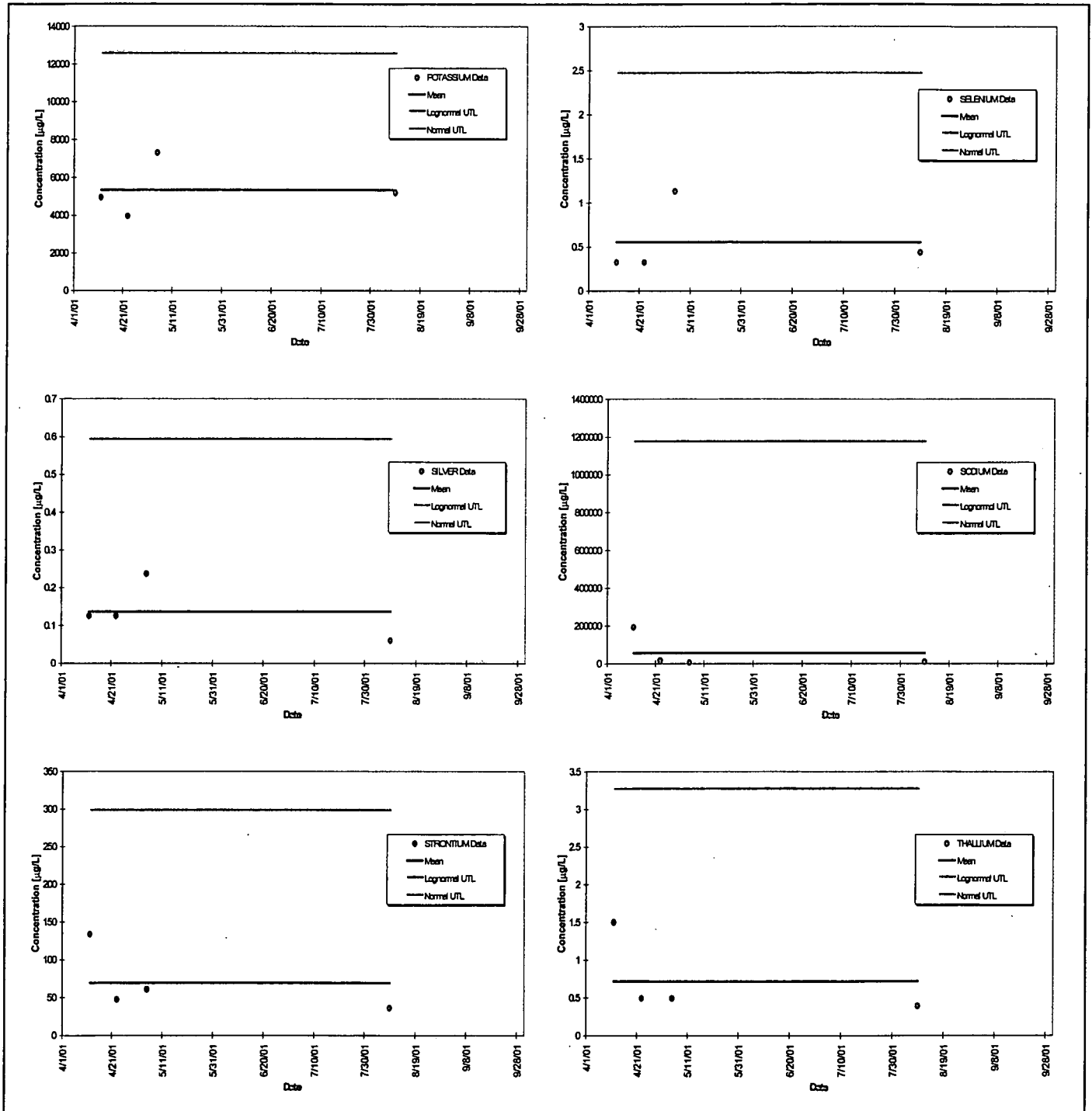


Figure 10-116. Total Metals UTL Plots for GS50: Potassium through Thallium.

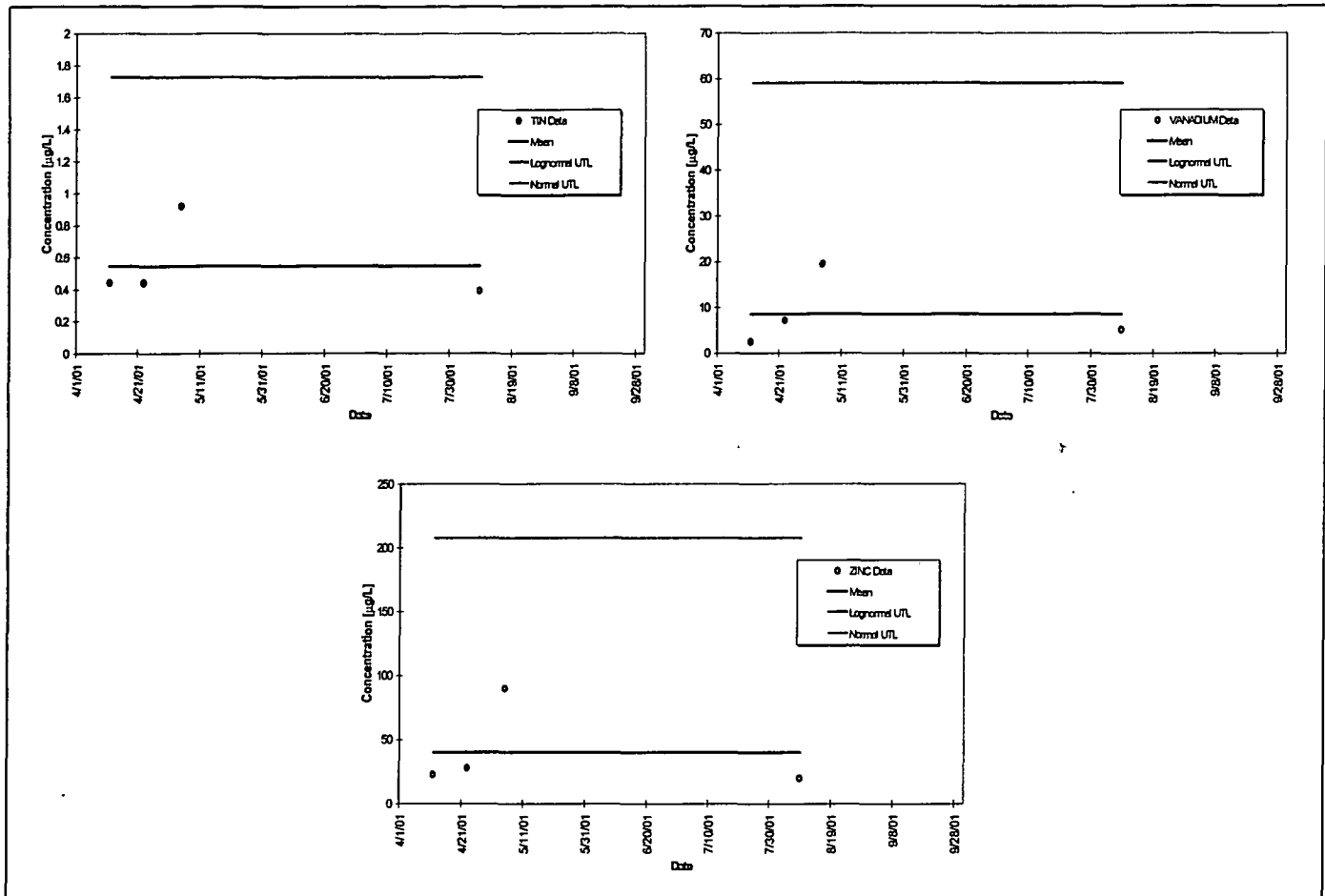


Figure 10-117. Total Metals UTL Plots for GS50: Tin through Zinc.

Monitoring data collected at SW119 show moderate Pu and Am activities (Table 10-21). Figure 10-118 and Figure 10-119 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu or Am results exceeded the calculated UTL for the small number of data points. Figure 10-121 also shows a significantly lower Pu/Am ratio than expected. This is likely due to the proximity of SW119 to the Solar Ponds.

Monitoring data collected at SW119 show low median total uranium activities (Table 10-21). Figure 10-120 shows that none of the total uranium results were greater than the calculated UTL for the small number of data points. It should be noted that SW119 shows a median U-233,234/U-238 ratio significantly greater than 1 (Figure 10-122), indicating the possible existence of modified uranium. The ratios at this location are likely due to the proximity of SW119 to the Solar Ponds.

The temporal variation of suspended solids activity is not given since only one sample was collected within TSS hold time criteria.

Table 10-21. Summary Statistics for Radionuclide Results from SW119 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	53	NA	NA	NA
Pu-239,240	5	0.074	0.177	0.300	0.583 ^a
Am-241	5	0.104	0.225	0.384	0.659 ^a
U-233,234	5	1.560	2.430	3.510	15.77 ^a / 10.65 ^b
U-235	5	0.051	0.082	0.114	
U-238	5	1.080	1.494	2.040	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

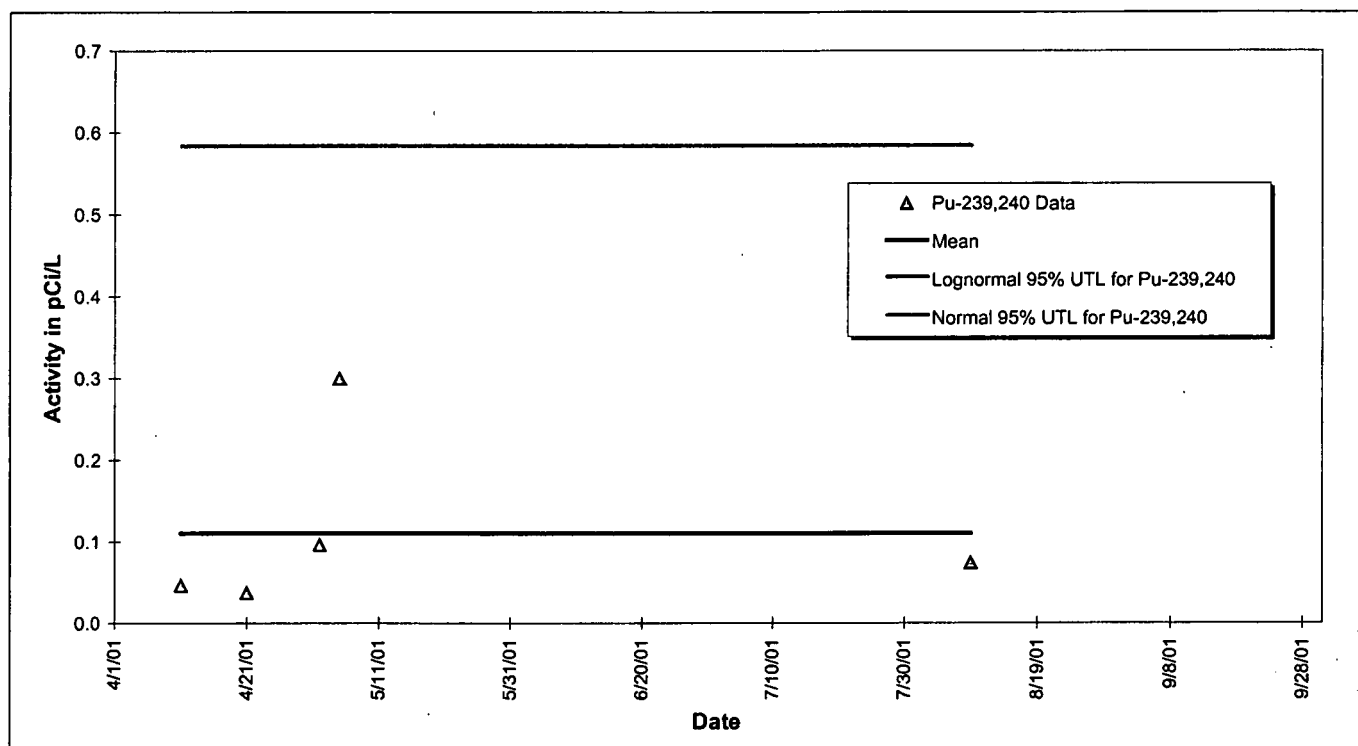


Figure 10-118. 95% UTL Plot for Pu-239,240 at SW119: WY99-01.

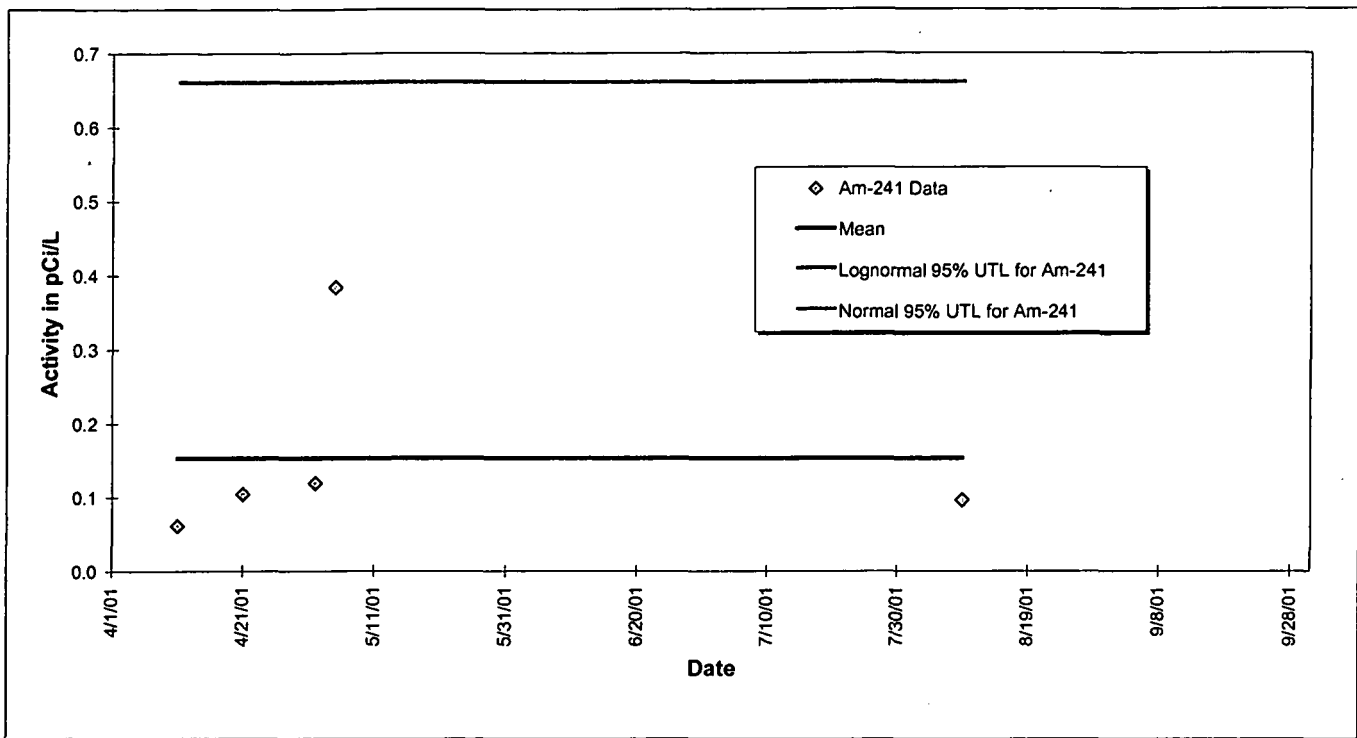


Figure 10-119. 95% UTL Plot for Am-241 at SW119: WY99-01.

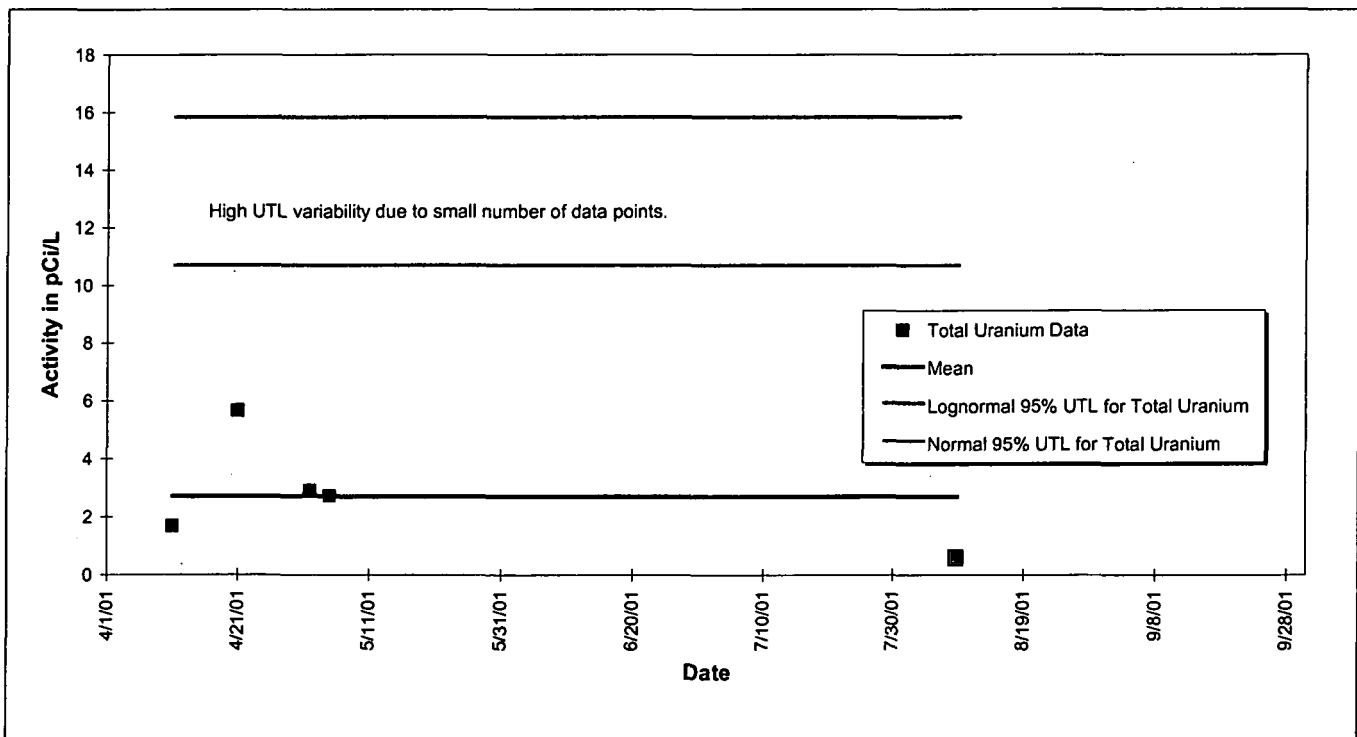


Figure 10-120. 95% UTL Plot for Total Uranium at SW119: WY99-01.

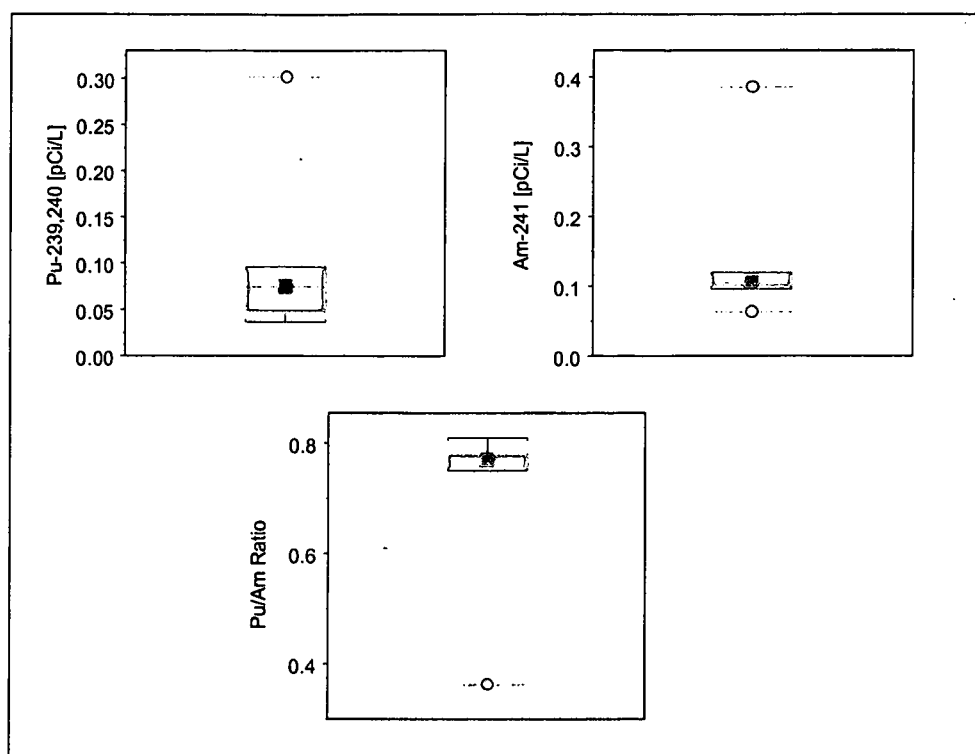


Figure 10-121. Pu and Am Box Plots for SW119: WY99-01.

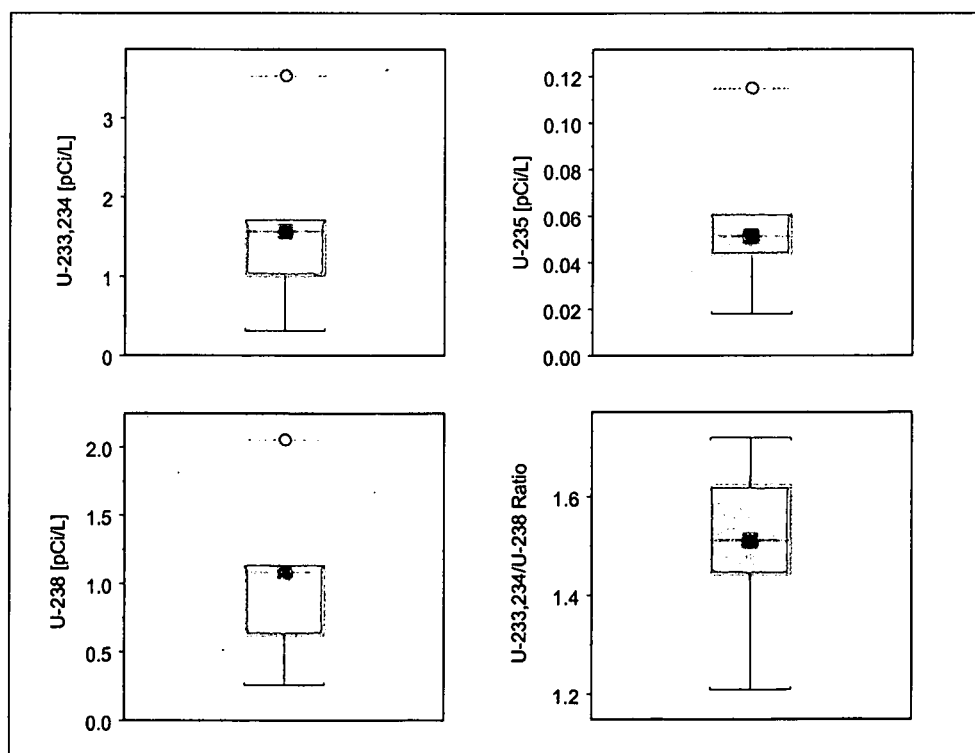


Figure 10-122. Uranium Box Plots for SW119: WY99-01.

Table 10-22 shows the total metals results for samples collected at SW119. Figure 10-123 through Figure 10-127 show the UTL plots for the metals. For the metals with a determined distribution, no results exceeded the calculated UTL for the small number of points available.

Data for metals Hg, Ag, Tl, and Sn had undetermined distributions. All of the Ag, Tl, and Sn data were 'undetected'. For Hg, a single result was indicated as 'suspect' in the box plot (Figure 10-129). The cause of this result is unknown, but subsequent samples showed 'normal' concentrations.

Table 10-22. Summary Statistics for Metals Results from SW119 in WY99-01.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85 th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	5	0.0%	3560	5994	7110	12198 ^a
ANTIMONY	5	0.0%	1.40	1.52	1.70	2.17 ^a
ARSENIC	5	0.0%	1.60	2.84	3.05	5.76 ^a
BARIUM	5	0.0%	115	132	141	259 ^a
BERYLLIUM	5	0.0%	0.27	0.34	0.35	0.53 ^a
CADMIUM	5	0.0%	0.32	0.70	1.20	2.25 ^a
CALCIUM	5	0.0%	27000	45140	45500	86291 ^a
CHROMIUM	5	0.0%	3.90	6.66	8.10	13.6 ^a
COBALT	5	0.0%	0.82	1.48	2.05	3.18 ^a
COPPER	5	0.0%	7.80	9.26	11.2	14.7 ^a
IRON	5	0.0%	2280	4346	5420	9821 ^a
LEAD	5	0.0%	2.40	7.09	8.80	21.8 ^a
LITHIUM	5	0.0%	21.5	35.2	37.7	68.9 ^a
MAGNESIUM	5	0.0%	7120	10238	10700	19316 ^a
MANGANESE	5	0.0%	31.6	53.8	76.4	125 ^a
MERCURY	5	80.0%	0.05	0.33	0.75	^c
MOLYBDENUM	5	0.0%	1.20	1.58	1.70	2.80 ^a
NICKEL	5	0.0%	3.60	5.20	6.40	9.79 ^a
POTASSIUM	5	0.0%	8650	13060	16900	26636 ^a
SELENIUM	5	60.0%	0.44	1.36	1.61	3.86 ^a
SILVER	5	100.0%	0.13	0.13	0.13	^c
SODIUM	5	0.0%	84000	278200	343000	789955 ^a
STRONTIUM	5	0.0%	206	343	344	669 ^a
THALLIUM	5	100.0%	0.49	0.49	0.49	^c
TIN	5	100.0%	0.44	0.44	0.44	^c
VANADIUM	5	0.0%	8.20	13.9	16.8	30.6 ^a
ZINC	5	0.0%	62.2	73.6	80.1	152 ^a

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

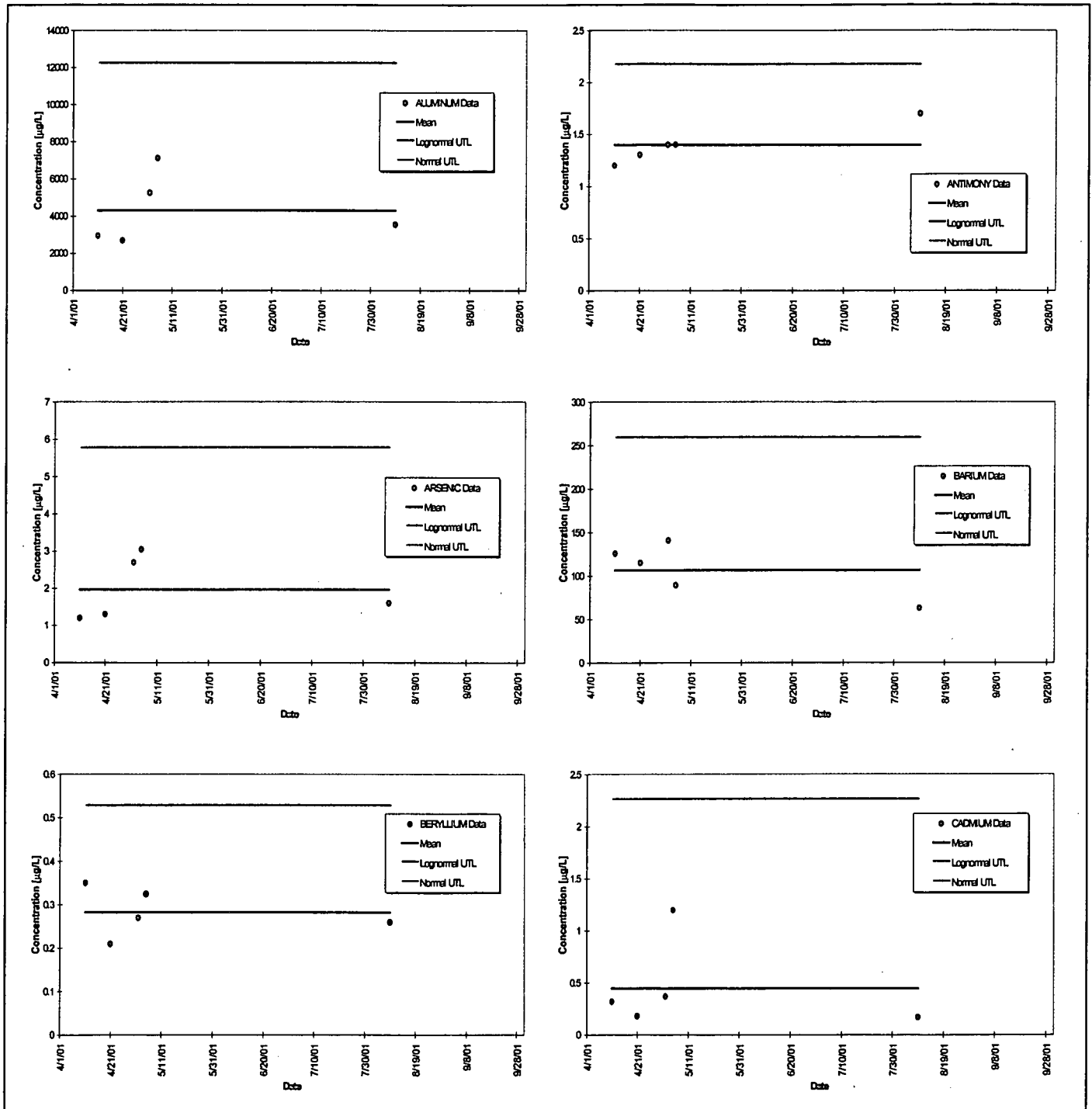


Figure 10-123. Total Metals UTL Plots for SW119: Aluminum through Cadmium.

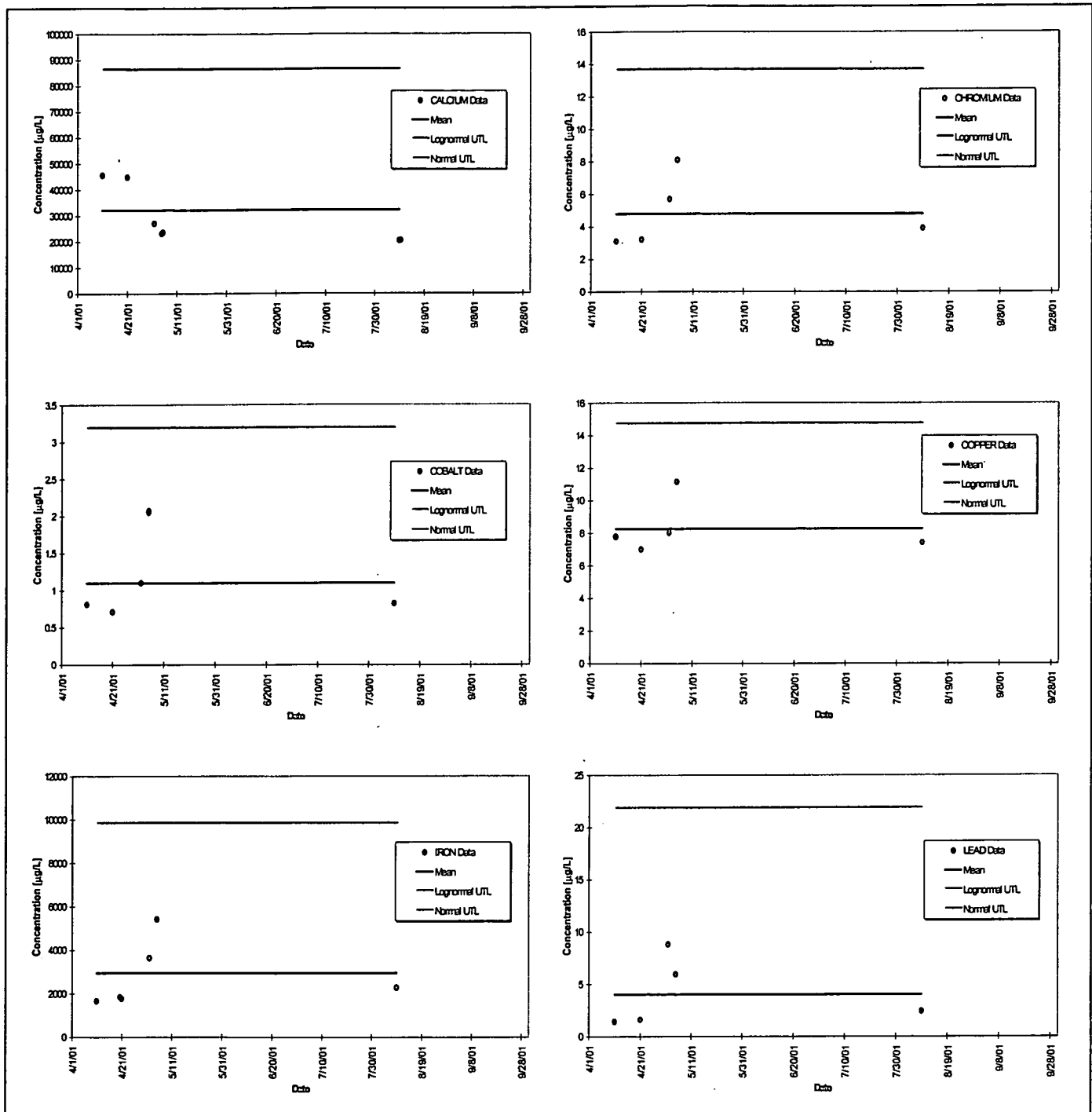


Figure 10-124. Total Metals UTL Plots for SW119: Calcium through Lead.

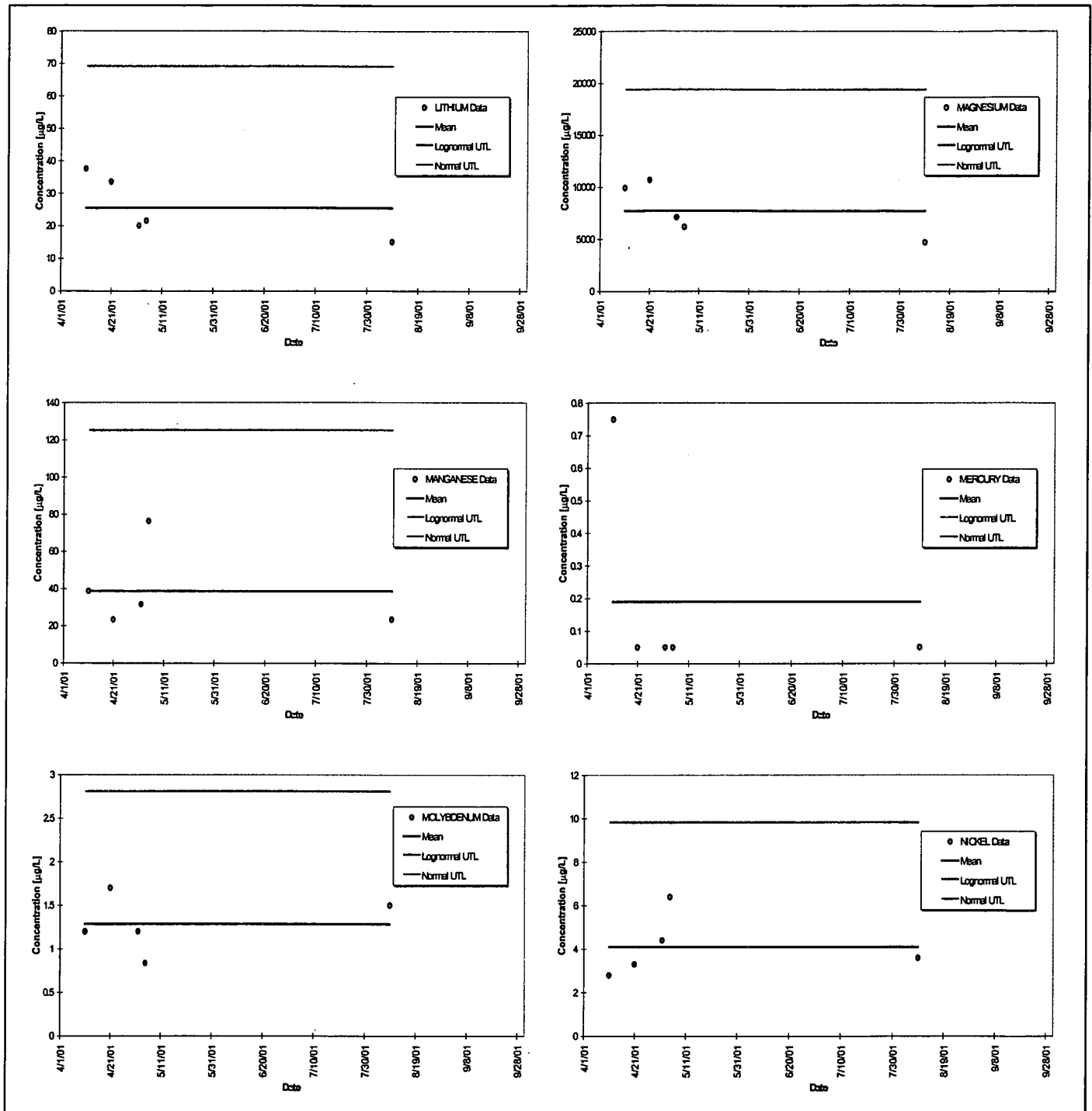


Figure 10-125. Total Metals UTL Plots for SW119: Lithium through Nickel.

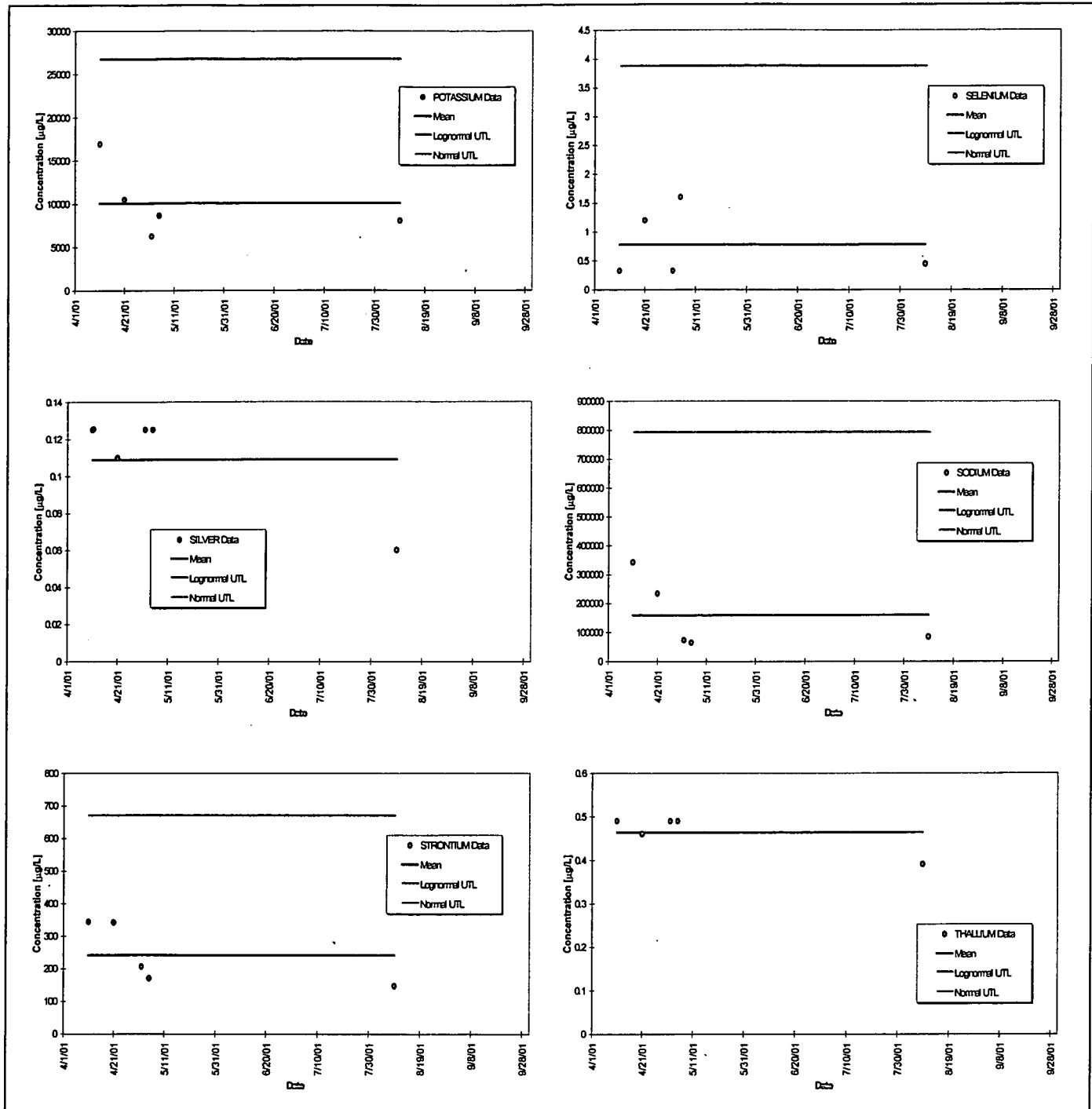


Figure 10-126. Total Metals UTL Plots for SW119: Potassium through Thallium.

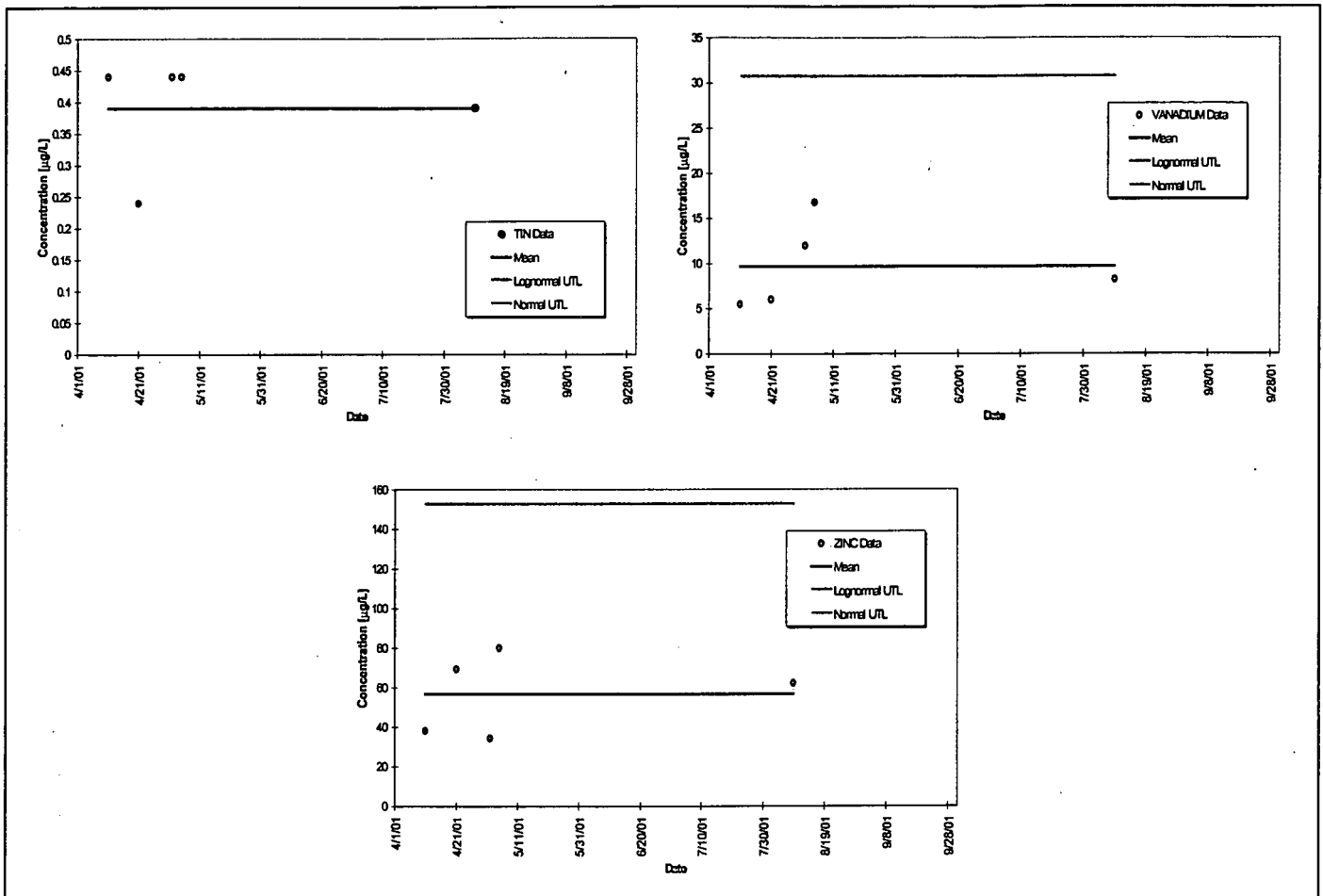


Figure 10-127. Total Metals UTL Plots for SW119: Tin through Zinc.

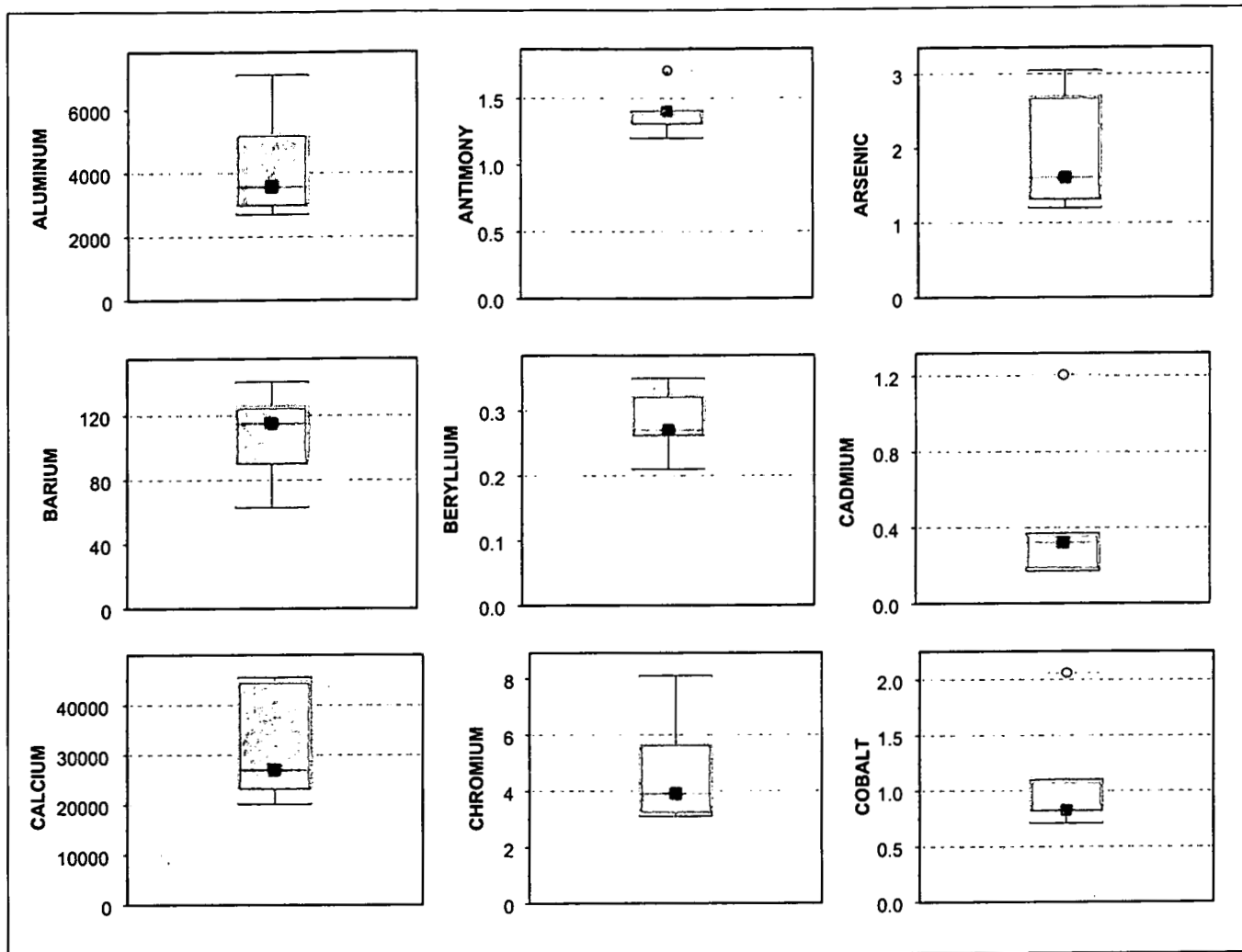


Figure 10-128. Total Metals Box Plots for SW119: Aluminum through Cobalt.

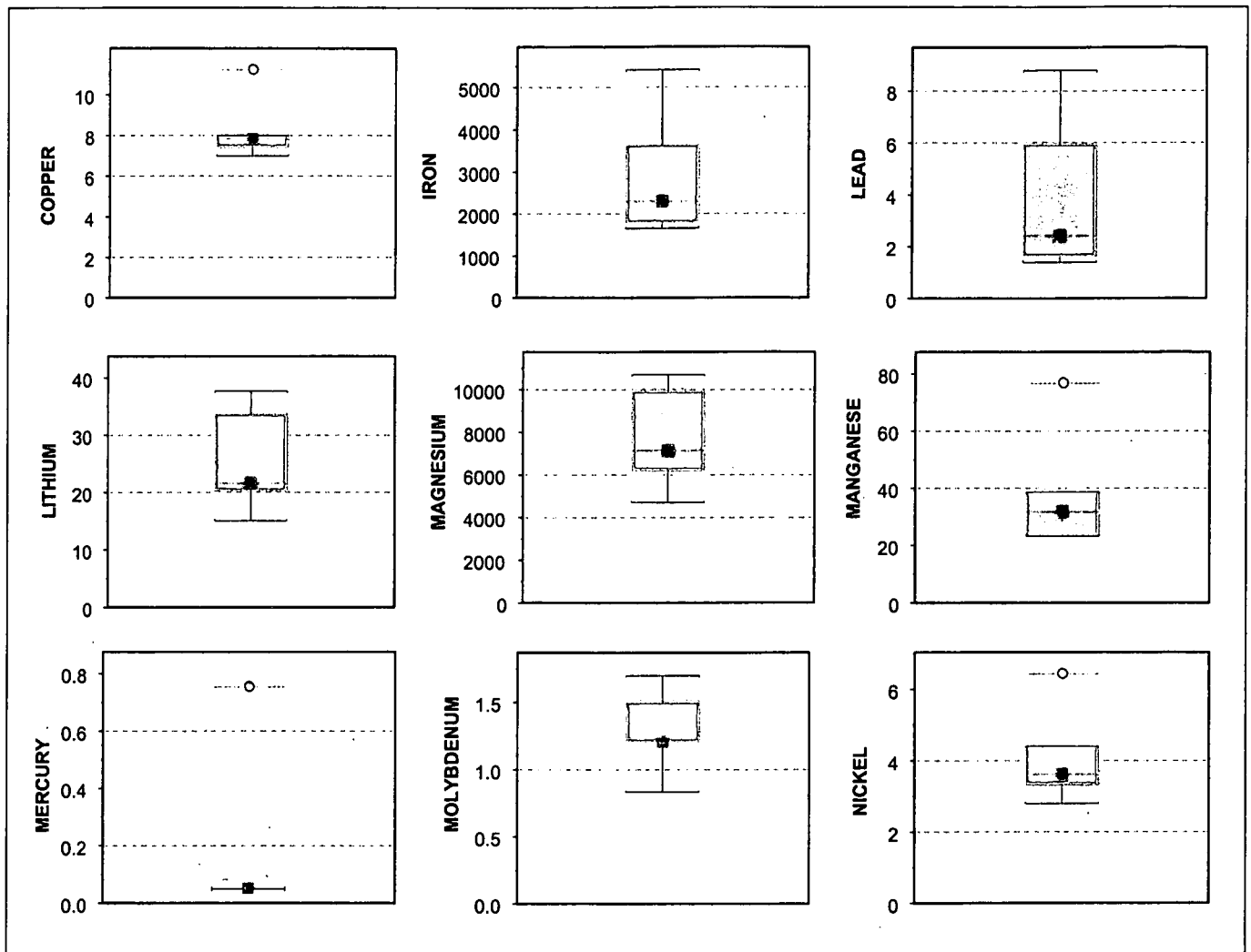


Figure 10-129. Total Metals Box Plots for SW119: Copper through Nickel.

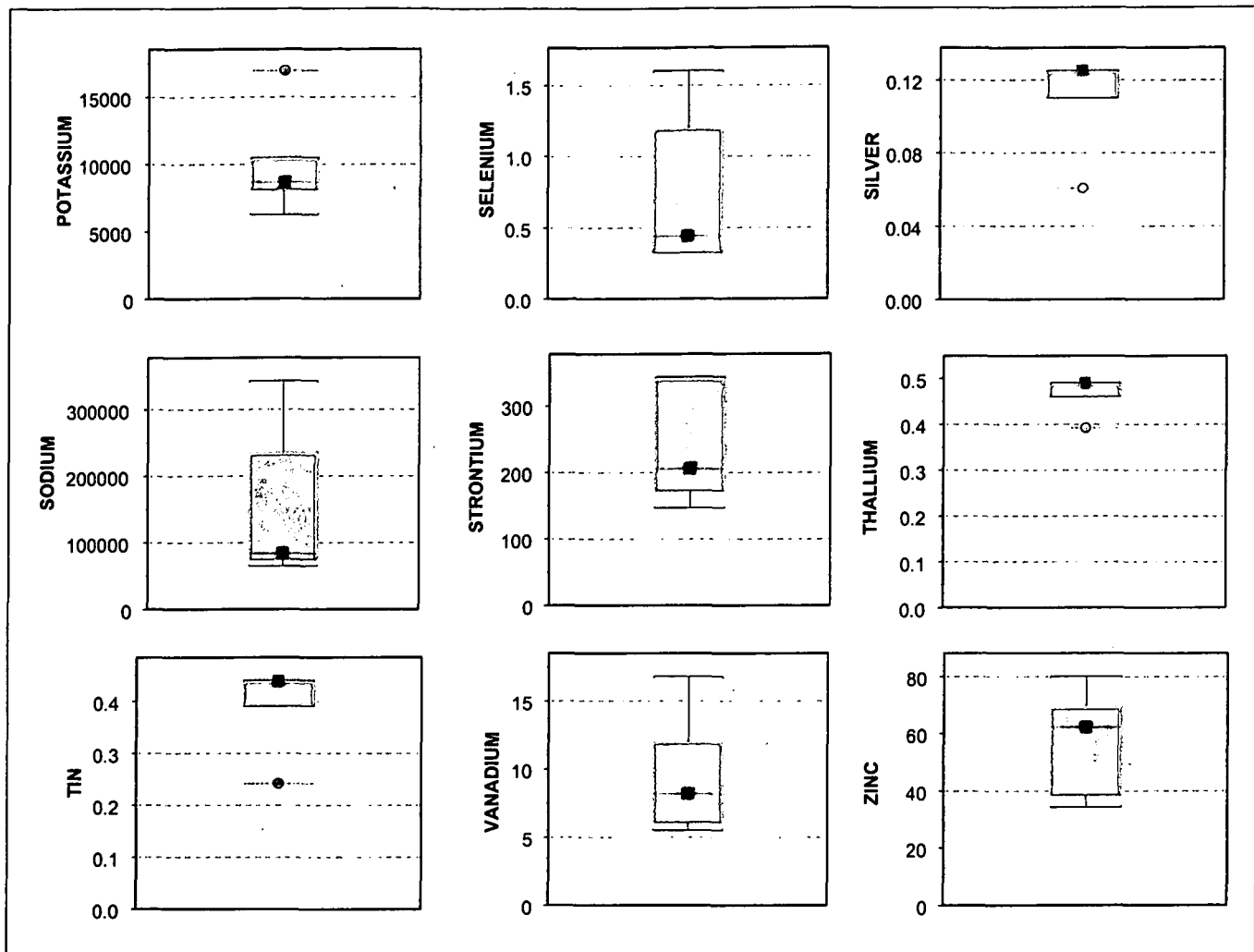


Figure 10-130. Total Metals Box Plots for SW119: Potassium through Zinc.

Monitoring data collected at SW091 show moderate Pu and Am activities (Table 10-23). Figure 10-131 and Figure 10-132 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu or Am results exceeded the calculated UTL for the small number of data points. Figure 10-134 also shows a significantly lower Pu/Am ratio than expected. This is likely due to the proximity of SW0919 to the Solar Ponds.

Monitoring data collected at SW119 show moderate median total uranium activities (Table 10-23). Figure 10-133 shows that none of the total uranium results were greater than the calculated UTLs for the small number of data points. It should be noted that SW091 shows a median U-233,234/U-238 ratio somewhat greater than 1 (Figure 10-135), indicating the possible existence of modified uranium. The ratios at this location are likely due to the proximity of SW091 to the Solar Ponds.

The temporal variation of suspended solids activity (Figure 10-136) shows no significant change.

Samples collected at SW091 are currently not analyzed for metals.

Table 10-23. Summary Statistics for Radionuclide Results from SW091 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	6	48	110	180	NA
Pu-239,240	6	0.023	0.054	0.062	0.175 ^a / 0.112 ^b
Am-241	6	0.041	0.095	0.186	0.351 ^a
U-233,234	6	1.900	2.360	3.110	18.10 ^a / 10.03 ^b
U-235	6	0.062	0.106	0.128	
U-238	6	1.460	1.950	2.640	

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

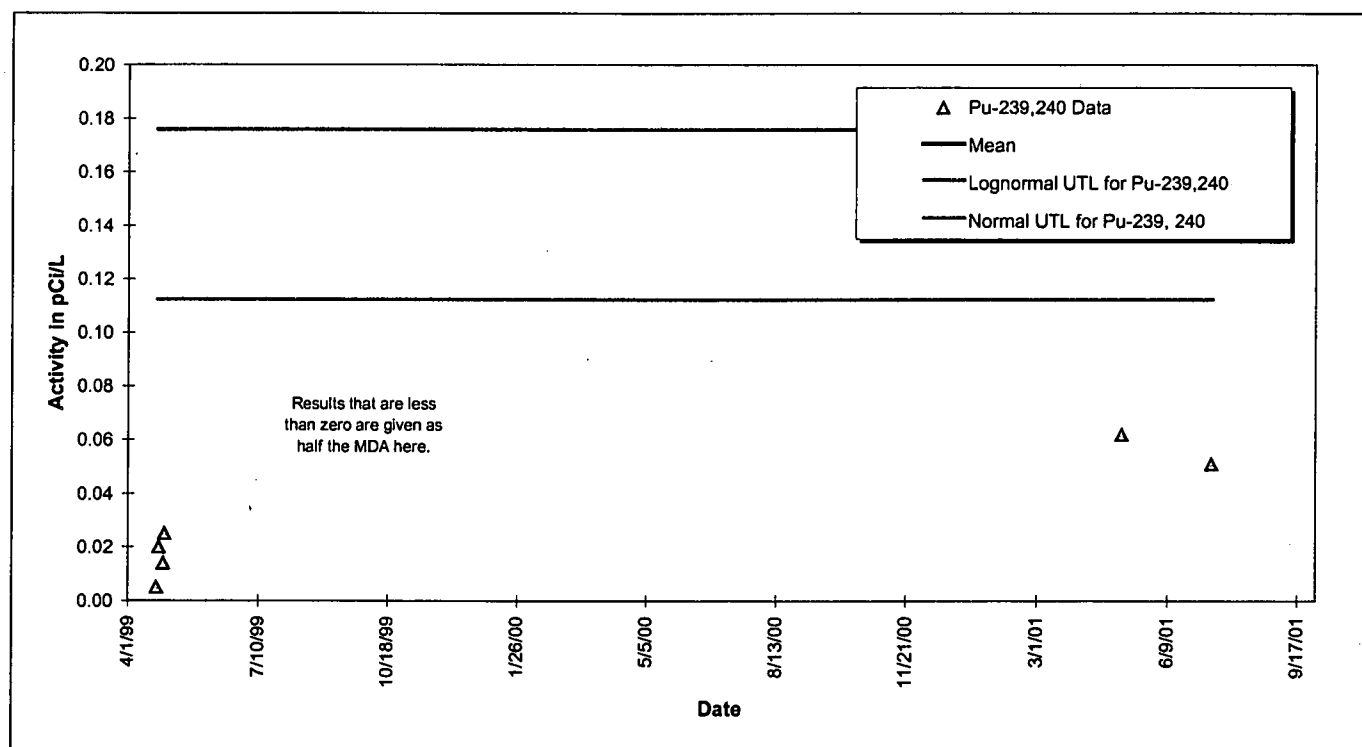


Figure 10-131. 95% UTL Plot for Pu-239,240 at SW091: WY99-01.

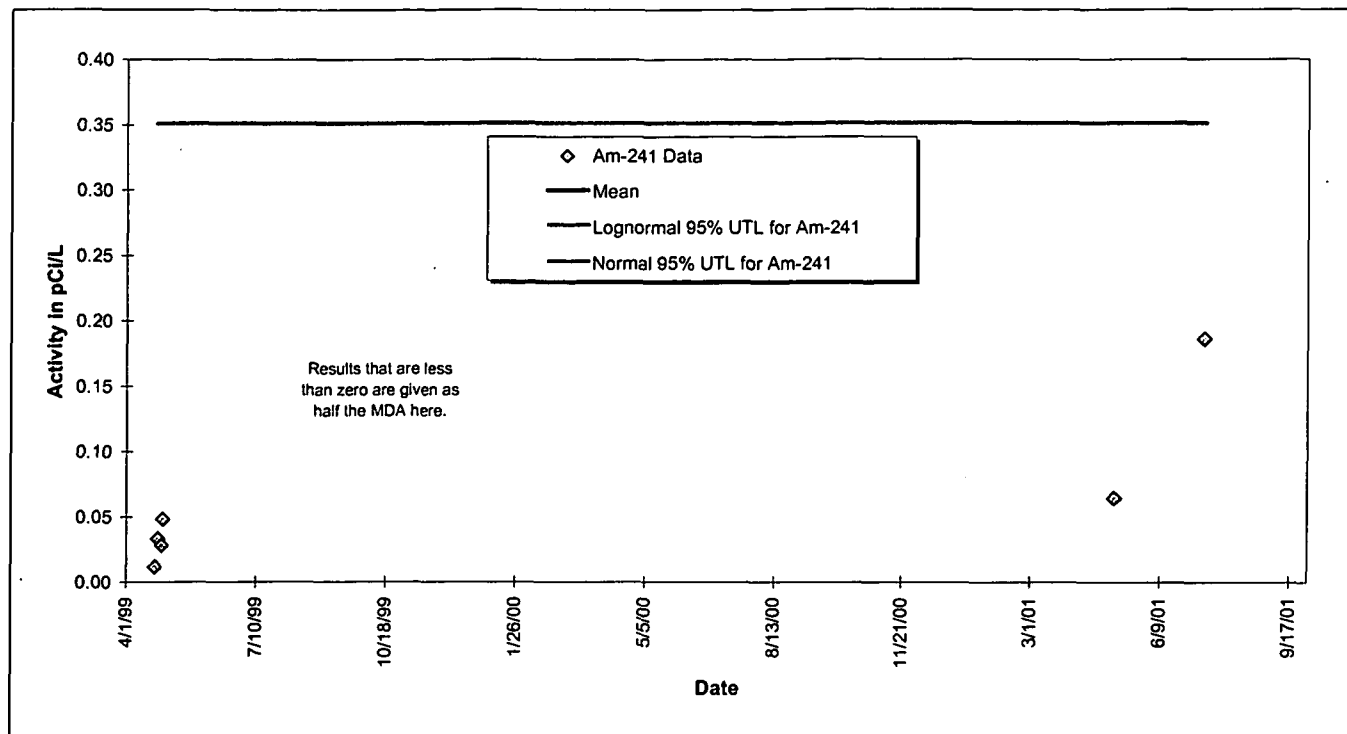


Figure 10-132. 95% UTL Plot for Am-241 at SW091: WY99-01.

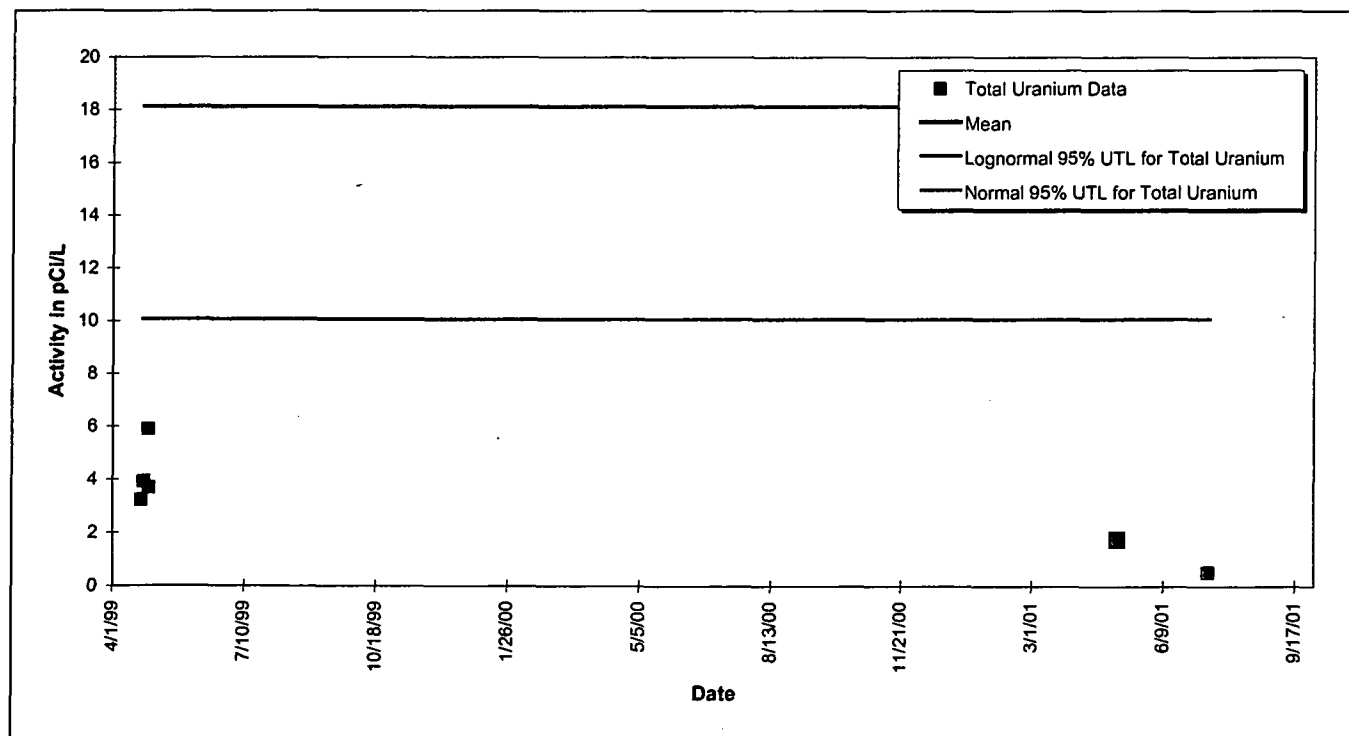


Figure 10-133. 95% UTL Plot for Total Uranium at SW091: WY99-01.

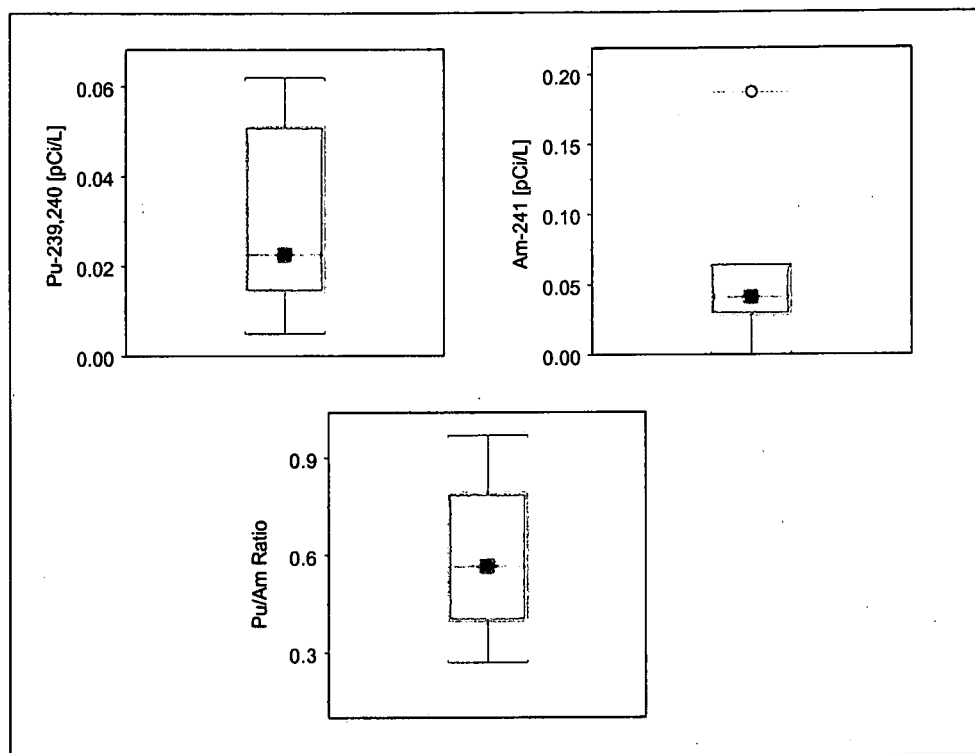


Figure 10-134. Pu and Am Box Plots for SW091: WY99-01.

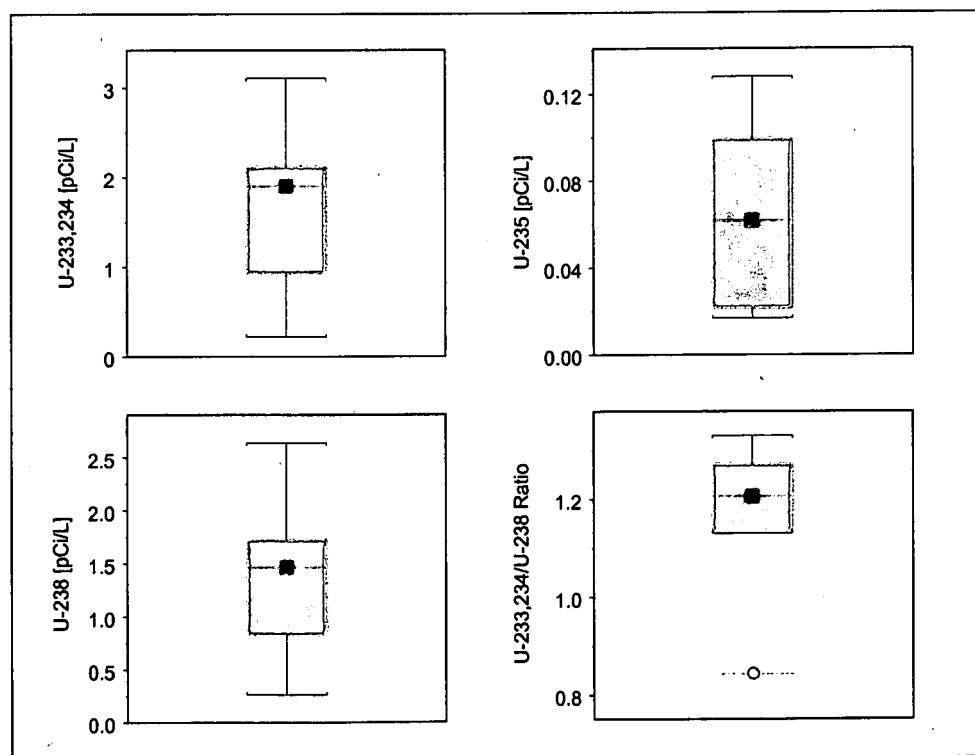


Figure 10-135. Uranium Box Plots for SW091: WY99-01.

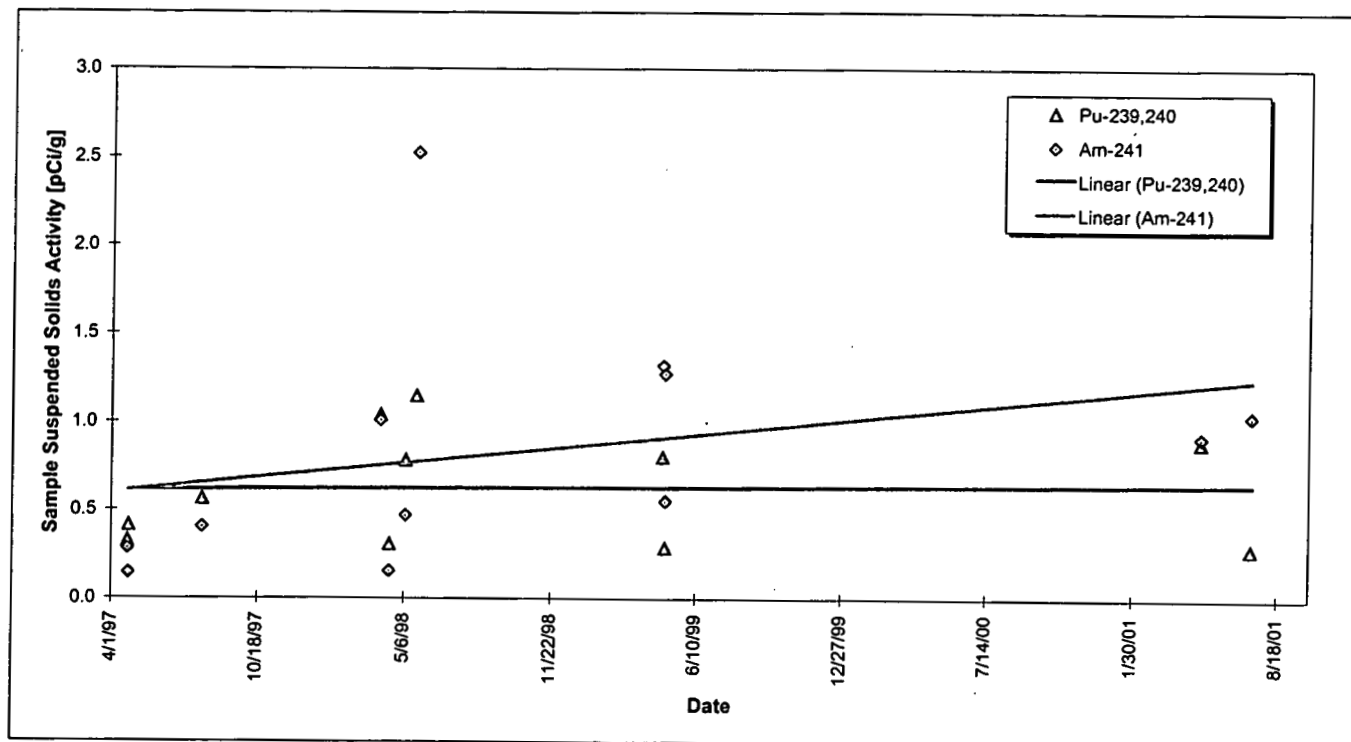


Figure 10-136. Temporal Variation of Suspended Solids Activity at SW091: WY97-01.

11. NEW SOURCE DETECTION MONITORING

The New Source Detection (NSD) monitoring objective provides comprehensive coverage of the entire IA but is not specifically focused on individual actions within the IA. Performance monitoring of specific activities within the IA (or elsewhere) may be carried out under the Performance monitoring objective. This NSD objective monitors the performance of all remedial activities within the IA with respect to their impact on surface waters. However, it does not necessarily identify and locate a specific source within the IA²¹. This monitoring objective provides for monitoring of all main drainages from the IA into the three main channels of Stream Segment 5.

11.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

This objective requires contaminant concentration data from surface-water samples taken at permanent monitoring locations located on the five main surface-water pathways to the Site detention ponds. Analyses are performed for each of the contaminants and parameters listed below in order to establish a baseline. After a baseline has been established, evaluations will be performed as required by the decision rules. The basis for selecting these contaminants of concern and indicator parameters is described below.

- Pu, U, and Am are primary contaminants of concern to the regulators and the public.
- Turbidity, pH, nitrate (NO_3^-), and conductivity are analyses performed continuously because they are inexpensive per measurement and can be used as real-time indicators to provide or negate reasonable cause to analyze for other specific contaminants.
- Turbidity may indicate increased contaminant loads in general and increased Pu specifically. (Pu in surface water is generally bound to particulates).
- pH can be used to detect an acid or caustic spill.
- Nitrate can be used in real-time to detect chemical spills that include plutonium nitrate.
- Conductivity can be used to corroborate a pH reading and to detect salt solution spills or significant concentrations of ionic contaminants.
- Precipitation data are used to determine whether a flow event results from rain/snow runoff, an operational discharge²², or a spill. Precipitation data are collected at 10 locations across the Site. From these, effective precipitation for a given monitoring location drainage can be calculated.
- Water flow rate is needed to identify an event, trigger an automatic sampler, control the flow-paced sampling, and evaluate the magnitude of the spill or contaminant source (mass loading).
- Small changes to apparent base flow not attributable to rain and snow melt, or unusual runoff hydrograph shapes, may indicate a spill or operational discharge.

This monitoring objective is limited to information collected at the IA boundary, as represented by surface-water monitoring stations SW022, SW091, SW093, SW027, and GS10²³ (see Figure 11-1). This monitoring focuses on runoff into the three main drainage areas leaving the IA: North Walnut Creek, South Walnut Creek, and the South Interceptor Ditch / Pond C-2 drainage (see Figure 2-3). SW022 waters are normally monitored subsequently at GS10, so there is some redundancy in this set of monitoring stations. SW022 has been included at the request of

²¹ Location of a specific source would be performed under the Source Location monitoring objective described in Section 6.

²² An operational discharge can be defined as a footing drain or sump discharged to ground, an incidental water discharged to ground, spray water used for dust suppression during D&D, fire hydrant testing, a utility line break, etc.

²³ Subdrainage monitoring stations within the IA are used for Performance monitoring and source location but are excluded from the planned monitoring for this NSD decision rule.

the EPA to provide increased sensitivity for its drainage area. Data from SW022 would also be used to aid the location of any new source detected at GS10.

For SW022 (10/1/96 – 9/30/99) and SW091, sampling is event-specific, focused on the time period during which the first-flush conditions prevail; specifically, during the rising limb of a direct runoff hydrograph after any storm event.²⁴ Starting on 10/1/99, SW022 began collecting continuous flow-paced composite samples. For SW093, GS10, and SW027, the analytical data used for the NSD objective will be the same data as collected from the continuous flow-paced sampling used for monitoring Segment 5 Action Level compliance (see Section 12).

Only surface-water runoff from the IA is included, (i.e., baseflow, stormwater runoff flow, operational discharges, and spills to surface water). Spills are only included in this NSD monitoring as a secondary monitoring objective if an increase in flow rate is detected and cannot be attributed to precipitation runoff or other identified discharge. However, other management controls (e.g., Spill Prevention, Control, and Countermeasures Plan [SPCC; RFCSS 2002] and Storm Water Pollution Prevention Plan [SWPPP; RFCSS 2001] address monitoring of spills as a primary objective. Three of these NSD locations also provide confirmation that containment measures for spills or accidental discharges have been effective through monitoring of the real-time indicator parameters.²⁵

Indicator monitoring will be performed for the parameters specified at the top of each column of Table 11-1. The first three columns are Analytes of Interest (AoIs) monitored directly through sample analytical measurements. Although these three columns and rows have a different relationship than the others, they have been included so that all monitored parameters are shown on the same table. The remaining columns are indicator parameters that are monitored with inexpensive real-time probes in lieu of analyzing for the AoIs identified at the left of each row.

Table 11-1. Screening for New Source Detection: AoIs vs. Indicator Parameters.

AoIs	Routinely Monitored Parameters							
	Monitored AoIs			Indicator Parameters for AoIs				
	Pu	U	Am	Turbidity	pH	Conductivity	Nitrate	Flow Rate; Precipitation ^a
Plutonium	X			X			X	X
Uranium		X						X
Americium			X	X				X
Turbidity				X				X
pH					X		X	X
Conductivity						X		X
Nitrate						X	X	X
Chromium					X	X	X	X
Beryllium						X		X
Silver						X		X
Cadmium						X	X	X

Notes: ^a Precipitation data are collected at Sitewide locations. Precipitation data collection is not required at each NSD location, but Sitewide data are used for NSD evaluation.

²⁴ Descriptions of sample collection protocols are given in the RFETS Automated Surface-Water Monitoring Work Plan.

²⁵ Real-time indicator measurement at SW022 and SW091 has proven impractical due to the ephemeral nature of the flow at these locations. The real-time water quality probes require that their sensors remain wet at all times. Since these locations are dry except during periods of direct runoff, the Site has historically employed 'sump' systems that use tap water to keep the sensors wet. These systems were designed to flush during direct runoff so that the tap water was replaced by runoff water. However, the relatively slow response time of the sensors often resulted in data that was poor or unusable. These sump systems were also susceptible the freezing during cold weather, which occasionally resulted in damage to the equipment. For these reasons, the Site has very limited real-time indicator data for SW022 and SW091, and water-quality probes are not routinely deployed at these locations.

11.2 WY01 MONITORING SCOPE

Table 11-2. New Source Detection Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
SW093	N. Walnut Cr. 1300' upstream from the A-1 Bypass	36" Suppressed Rectangular Sharp-Crested Weir	Yes
SW091	Gully NE of Solar Ponds outside inner fence	6" Cutthroat Flume	Yes
GS10	S. Walnut Cr. upstream from the B-1 Bypass	9" Parshall Flume	Yes
SW022	Central Avenue Ditch at inner east fence	9.5" Parshall Flume	Yes
SW027	South Interceptor Ditch just upstream of Pond C-2	Dual Parallel 120° V-Notch Weirs	Yes

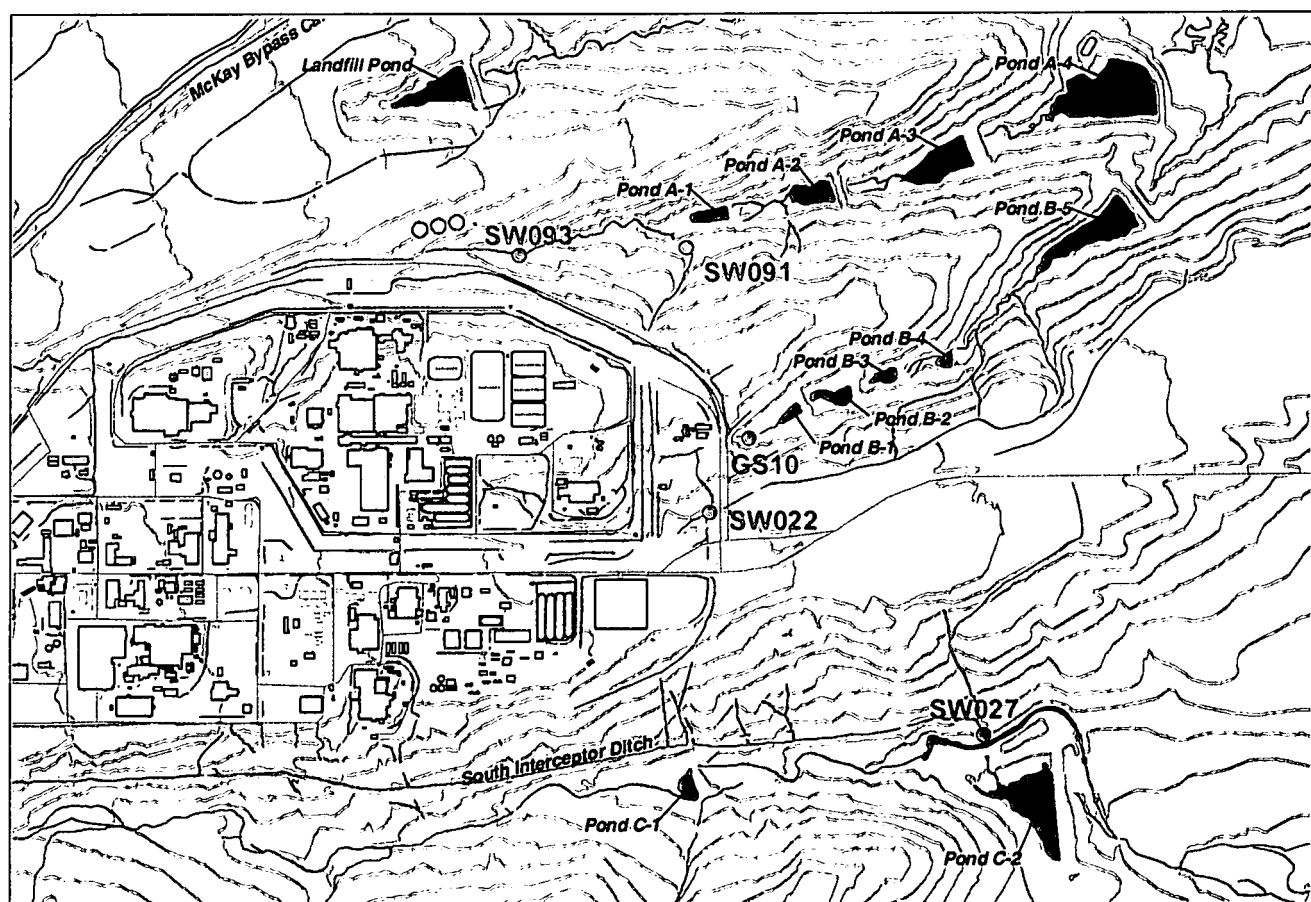


Figure 11-1. Water Year 2001 New Source Detection Monitoring Locations.

Table 11-3. New Source Detection Field Data Collection: Parameters and Frequency.

ID Code	Discharge	Parameter	
		Real-Time pH, Conductivity, Turbidity, Nitrate	Precipitation
SW093	15-min continuous	15-min continuous	NA
SW091	15-min continuous	See footnote 25	NA
GS10	15-min continuous	15-min continuous	NA
SW022	15-min continuous	See footnote 25	5-min continuous
SW027	15-min continuous	15-min continuous	NA

Table 11-4. New Source Detection Sample Collection Protocols.

ID Code	Frequency ^a : WY01 Actual (Target)	Type ^b
SW093	36 (12 per year ^c)	Continuous flow-paced composites
SW091	2 (1 per month ^d)	Storm-event rising-limb flow-paced composites
GS10	31 (12 per year ^c)	Continuous flow-paced composites
SW022	1 per month ^d ; 12 (12 per year ^c)	Storm-event rising-limb flow-paced composites (10/1/96 – 9/30/99; Continuous flow-paced composites (10/1/99 -)
SW027	8 (12 per year ^c)	Continuous flow-paced composites

Notes: ^a Only SW091 and SW022 (through 9/30/99) are sampled on the rising limb of the hydrograph, as originally specified for this decision rule. Stations SW093, SW027, and GS10 are the Segment 5 Action Level (POE) monitoring stations (see Section 12). At these Segment 5 stations, NSD is performed by statistically testing the continuous flow-paced sample results required for the POE objective. The same test criterion will be used, except that continuous flow-paced samples will be tested against flow-paced variability. These locations will collect more than the target 12 samples for the NSD objective. All results collected at these locations under the POE objective will be used in the NSD objective.

^b Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

^c Sample frequency distribution during the year for SW093, GS10, and SW027 (POEs) is given in Section 12.

^d Storm-event sampling at locations which are often dry and normally only receive direct runoff is opportunistic. These locations may see flow only during wet months. Every attempt is made to achieve the target sample frequency; however, this is not always possible.

Table 11-5. New Source Detection Analytical Targets (Analyses per Year).

ID Code	Pu, U, Am: WY01 Actual (Target)
SW093 ^a	36 (12)
SW091	2 (12)
GS10 ^a	31 (12)
SW022	12 (12)
SW027 ^a	8 (12)

Notes: ^a Stations SW093, SW027, and GS10 are the Segment 5 Action Level (POE) monitoring stations (see Section 12). At these Segment 5 stations, NSD will be performed by statistically testing the continuous flow-paced sample results required for the POE objective. The same test criterion will be used, except that continuous flow-paced samples will be tested against flow-paced variability. These locations will collect more than the target 12 samples for the NSD objective. All results collected at these locations under the POE objective will be used in the NSD objective.

11.3 DATA EVALUATION

Indicator monitoring is performed for the parameters specified at the top of each column of Table 11-1. The first three columns are Analytes of Interest (AoIs) monitored directly through sample analytical measurements. The remaining columns are indicator parameters that are monitored with inexpensive real-time probes in lieu of

analyzing for the AoIs identified at the left of each row. If a significant increase is detected in any one of these indicator parameters, then there is reasonable cause to suspect the presence of the AoI identified at the left end of the row in which an "X" appears. For example, if the pH probe detects an extreme pH level, then the Site would have reasonable cause to suspect the presence of chromium (chromic acid) and, of course, extreme pH (acid or base), both of which are AoIs for Segment 5. If there were reasonable cause to suspect the presence of these analytes of interest, then the Site may perform additional analytical procedures specific for the analytes of interest.

Data collected by water-quality probes at New Source Detection locations are considered and evaluated, at a minimum, in the following ways:

- Daily average values are checked qualitatively (daily on work days) using the radio telemetry equipment;
- A general qualitative evaluation of data is performed (generally monthly);
- A detailed work-up of 15-minute data is generated and archived (generally monthly); and
- A detailed work-up and evaluation of daily averages is completed and archived (generally monthly).

Each of these data evaluation activities is completed for all water-quality parameters measured by the probes. Additional evaluation may be performed for a variety of reasons including spill investigations, special requests, and studies of probe performance. The above listed data evaluation activities are described individually, in greater detail in Appendix B.5: Real-Time Water-Quality Parameters. Due to the relatively high error associated with the real-time nitrate sensor readings (see footnote in Appendix B.5.1), nitrate data are not presented in this section. Nitrate data are presented in Appendix B.5.2 for reference. Plots of the other mean daily water-quality parameter values are given below. More detailed data for all parameters are presented in Appendix B.5.2.

Generally, analytical data evaluation is performed as data become available, especially if an initial qualitative screening based on process knowledge indicates that an analytical result is higher than normal for a particular location. The desired evaluation frequency is semi-monthly, within one week of the 15th and last day of any given month.

Screening for reasonable cause to suspect a new source:

IF	The mean concentration of any of the screening indicator variables in Table 11-1 exceeds the 95% UTL/LTL of baseline for that variable,
THEN	The Site will evaluate the need for further action under RFCA ALF, such as source evaluation and control. Evaluations will address persistence, trends, and risk of Action Level exceedances at POEs.

Table 11-6. New Source Detection Monitoring Analytical Data Evaluation.

ID Code	Evaluation Type ^a
SW093	95% UTLs; Loading Analysis
SW091	95% UTLs
GS10	95% UTLs; Loading Analysis
SW022	95% UTLs
SW027	95% UTLs; Loading Analysis

Notes: ^a Details on the evaluation of analytical results are given in the RFETS Automated Surface-Water Monitoring Work Plan.

The following sections present the NSD monitoring data evaluations on a location-specific basis. Each section includes a table of summary statistics for the location-specific analytes of interest, 95% UTL plots, box-whisker plots, and plots of the temporal variation of suspended solids Pu and Am activity.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

For the summary tables, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When TSS results are returned from the laboratory as 'undetected', $\frac{1}{2}$ of the detection limit is used for calculation purposes.

The method for calculating UTLs is given in Appendix B.1: Data Evaluation Methods. For this report, the three year period of WY99-01 was used to calculate the UTL values. UTL lines are shown on the plots only for the determined distribution. When the data may satisfy either distribution, both UTL lines are plotted; when no distribution is determined, no line is plotted.

Box-whisker plots were calculated using S-Plus statistical evaluation software. For these plots, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. A key describing the components of the box-whisker plots is given in Appendix B.1: Data Evaluation Methods.

The temporal variation of suspended solids activity plots are included as an indication of changes in the contamination characteristics of a particular drainage basin. A suspended solids activity that decreases over time may indicate that contaminant sources have been removed from the drainage, clean solids have become more available to runoff, or contaminant sources have been naturally attenuated over time. Similarly, a suspended solids activity that increases over time may indicate that new contaminant sources have become available for transport in the drainage. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations below were analyzed for TSS. Only values greater than the detection limit (generally 5 mg/L for TSS, 0.015 pCi/L for Pu and Am) are included.

Plots of mean daily water temperature, pH, specific conductivity, and turbidity are also included.²⁶ The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

The loading analysis for GS10, SW027, and SW093 is presented in Section 5.

11.3.1 Location GS10

Monitoring location GS10 is located on S. Walnut Cr. at the perimeter of the IA just upstream of the B-Series ponds. Figure 3-29 shows the drainage area for GS10. The 100, 300, 400, 500, 600, 700, 800, and 900 areas all contribute flow to GS10.

Monitoring data collected at GS10 show the highest Pu and Am activities measured for the NSD monitoring locations (Table 11-7). Figure 11-2 and Figure 11-3 show the UTL plots for Pu and Am, respectively. During WY99-01, a single Pu result exceeded the calculated UTL, with significant variability in the results. During WY99-01, two Am results exceeded the calculated UTL, with significant variability in the results. These higher activities resulted in reportable 30-day averages under the POE monitoring objective (Section 12). In response, the Site was required to perform source evaluations to address these reportable values. A summary of the extensive investigations is given in Section 6.3.

²⁶ Mean daily water-quality values are given for days of measurable flow. Some data may be missing due to equipment failures and removal for calibration.

Table 11-7 shows moderate total uranium activities at GS10. Figure 11-4 shows the UTL plot for total uranium. During WY99-01, a single uranium result exceeded both the lognormal and normal calculated UTLs. Another result exceeded the normal UTL only. The box plot in Figure 11-5 indicates that neither of these results are considered 'suspect'. Additionally, subsequent samples showed lower uranium activities.

GS10 shows no significant trend in suspended solids activity (Figure 11-6), and the results show significant variability. Source evaluation activities (Section 6) for GS10 provides some discussion of this variability.

Table 11-7. Summary Statistics for Radionuclide Results from GS10: Water Years 1999-2001.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	97	0.045	0.190	2.270	0.662 ^a
Am-241	94	0.051	0.193	8.385	0.806 ^a
Total Uranium	97	2.930	4.402	6.480	6.38 ^a / 5.58 ^b

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.

^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

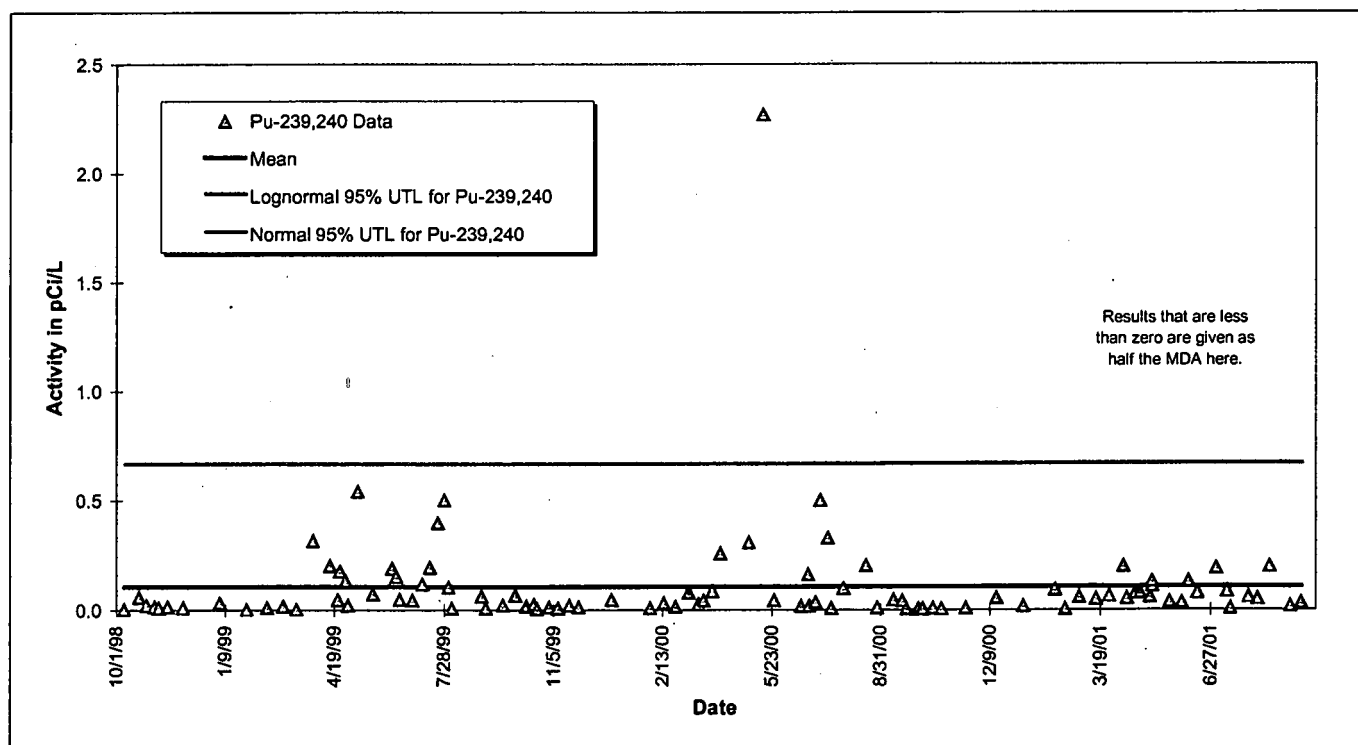


Figure 11-2. 95% UTL Plot for Pu-239,240 at GS10: WY99-01.

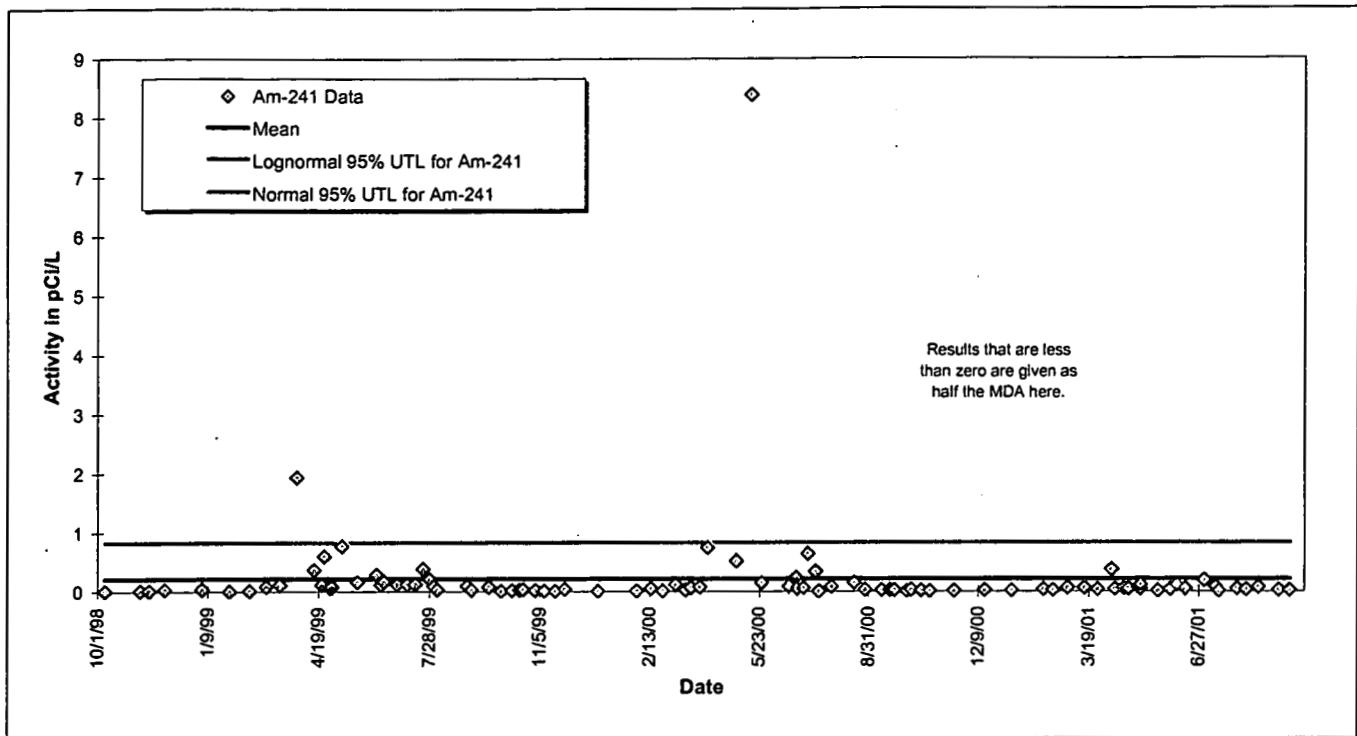


Figure 11-3. 95% UTL Plot for Am-241 at GS10: WY99-01.

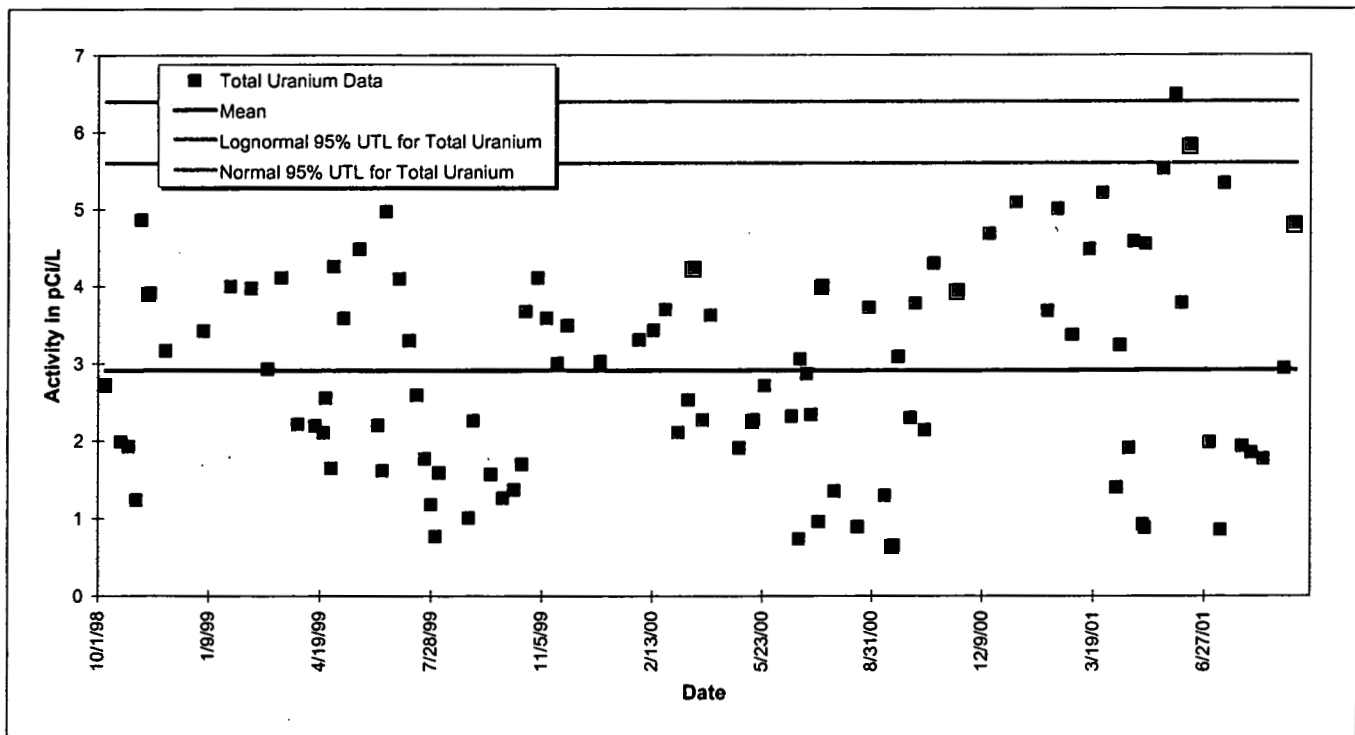


Figure 11-4. 95% UTL Plot for Total Uranium at GS10: WY99-01.

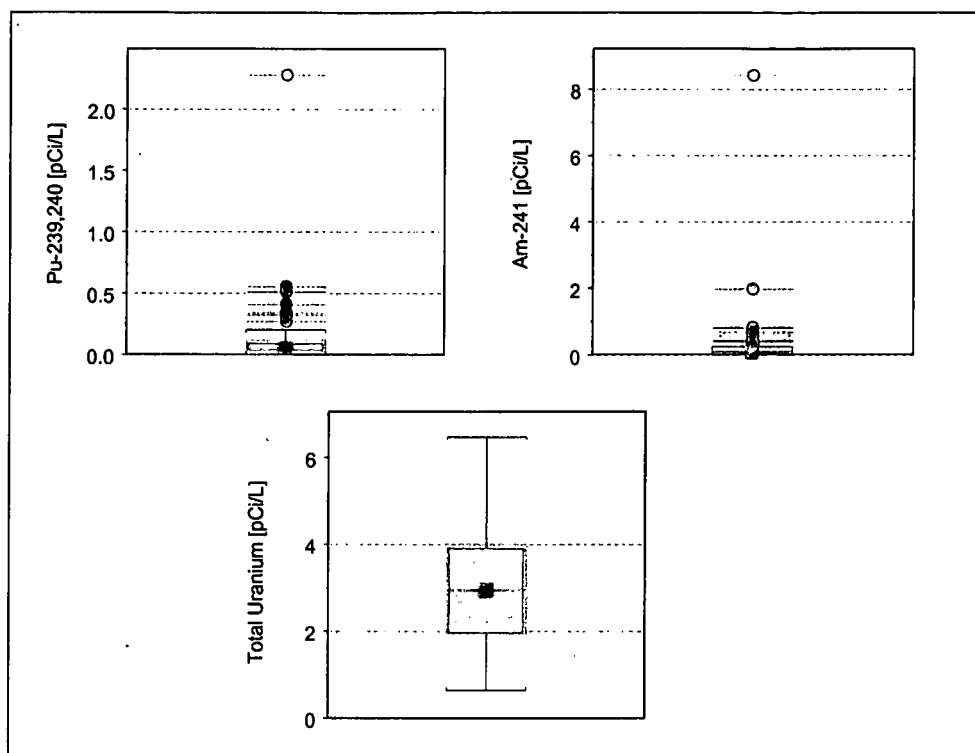


Figure 11-5. Radionuclide Box Plots for GS10: WY99-01.

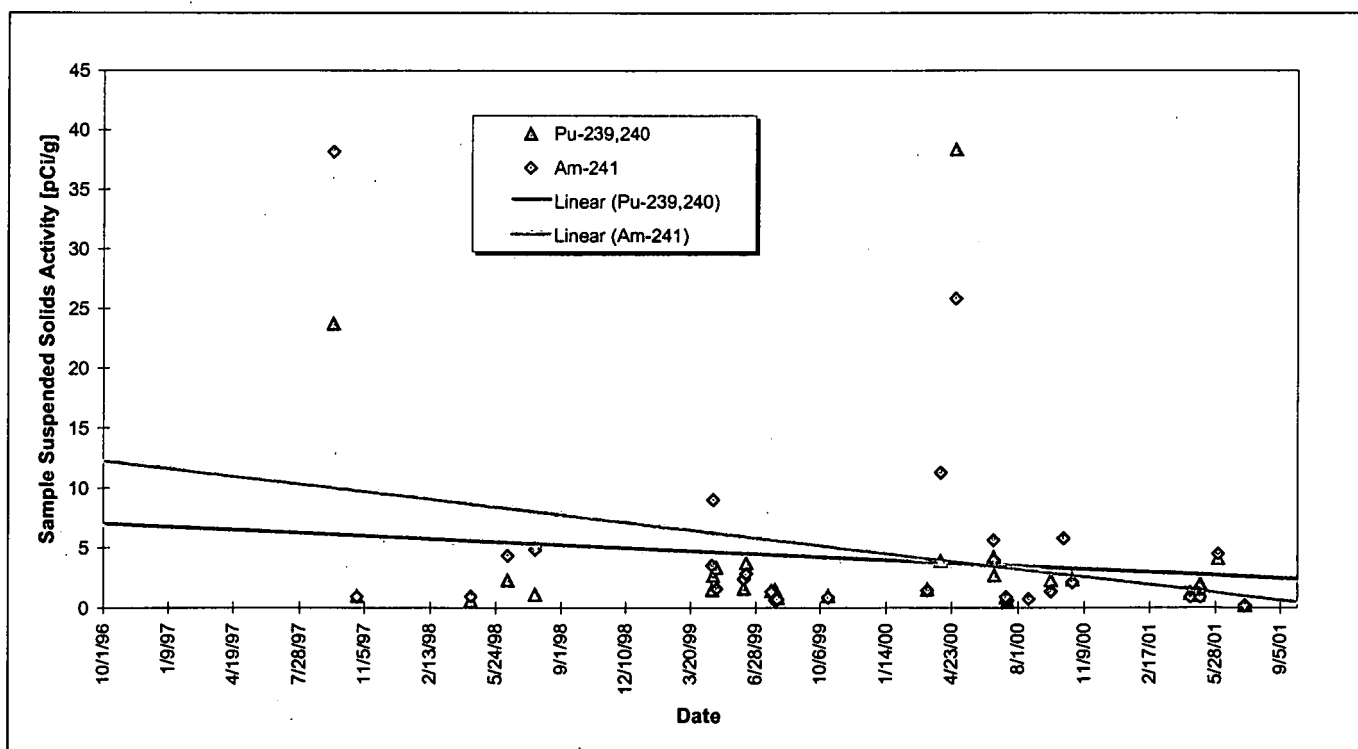


Figure 11-6. Temporal Variation of Suspended Solids Activity at GS10: WY97-01.

Mean daily water-quality parameter data are plotted in Figure 11-7 through Figure 11-14 along with the mean daily flow rate. Figure 11-7 and Figure 11-8 show the expected annual variation in water temperature.

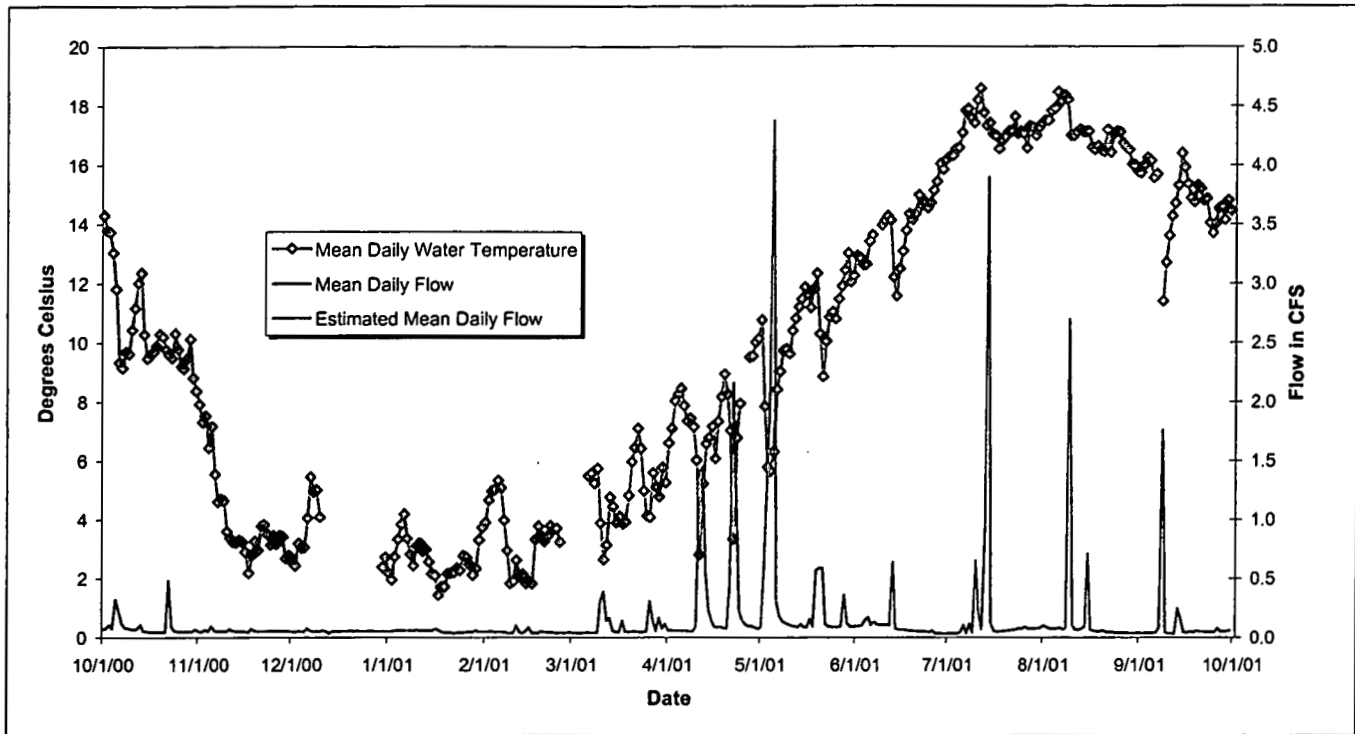


Figure 11-7. Mean Daily Water Temperature at GS10: Water Year 2001.

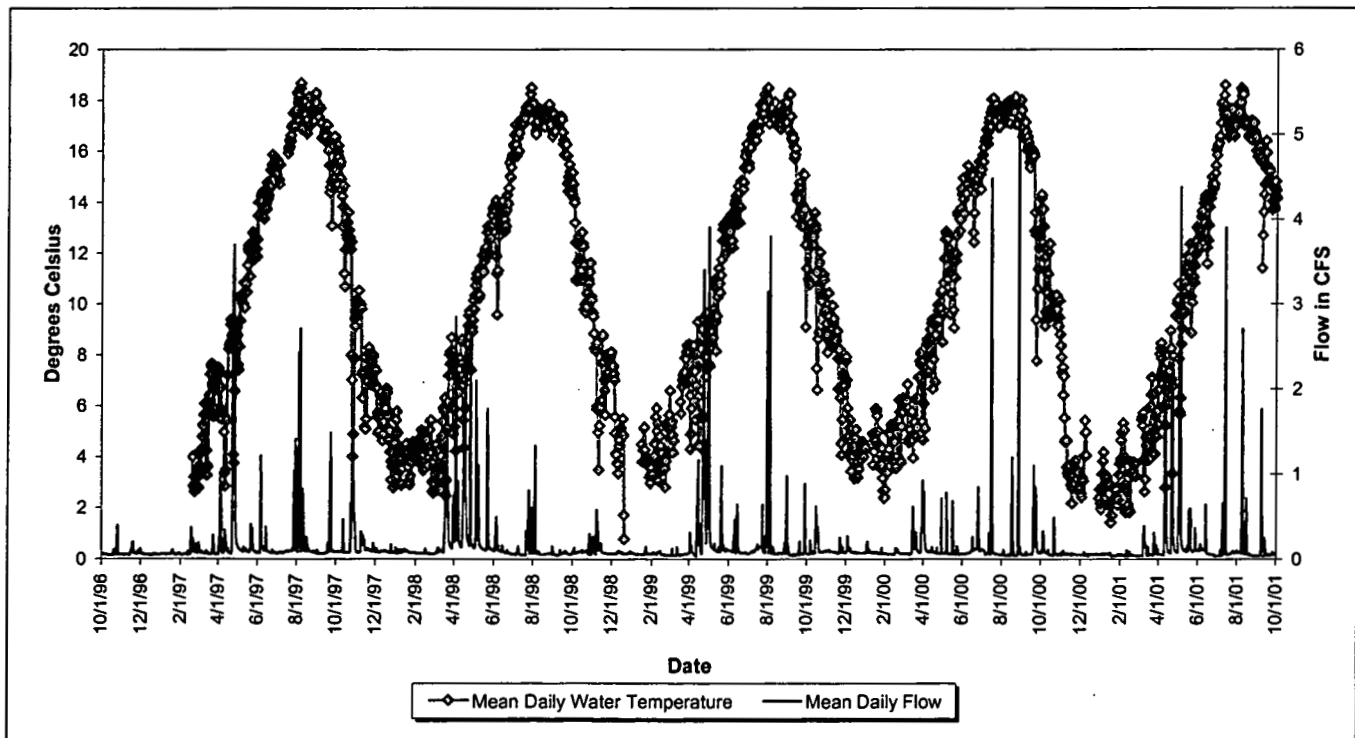


Figure 11-8. Mean Daily Water Temperature at GS10: Water Years 1997-2001.

Figure 11-9 and Figure 11-10 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations.

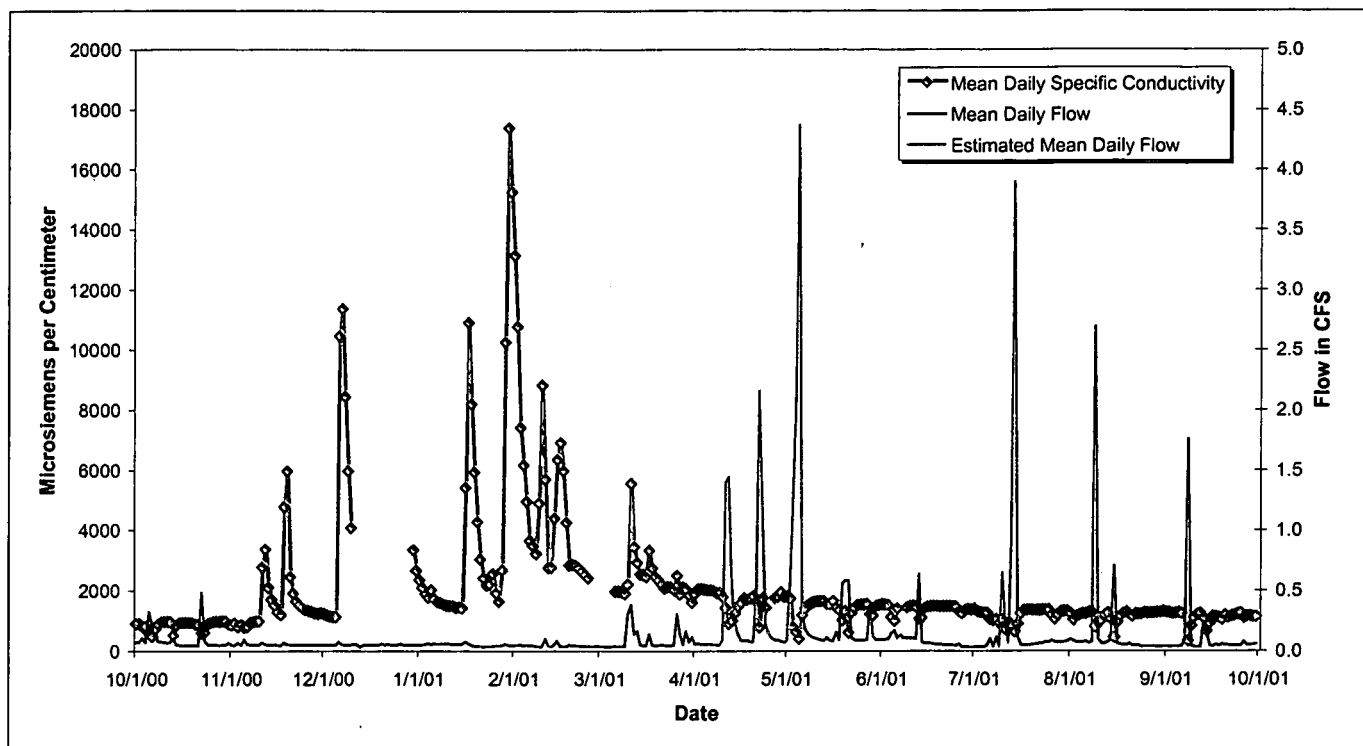


Figure 11-9. Mean Daily Specific Conductivity at GS10: Water Year 2001.

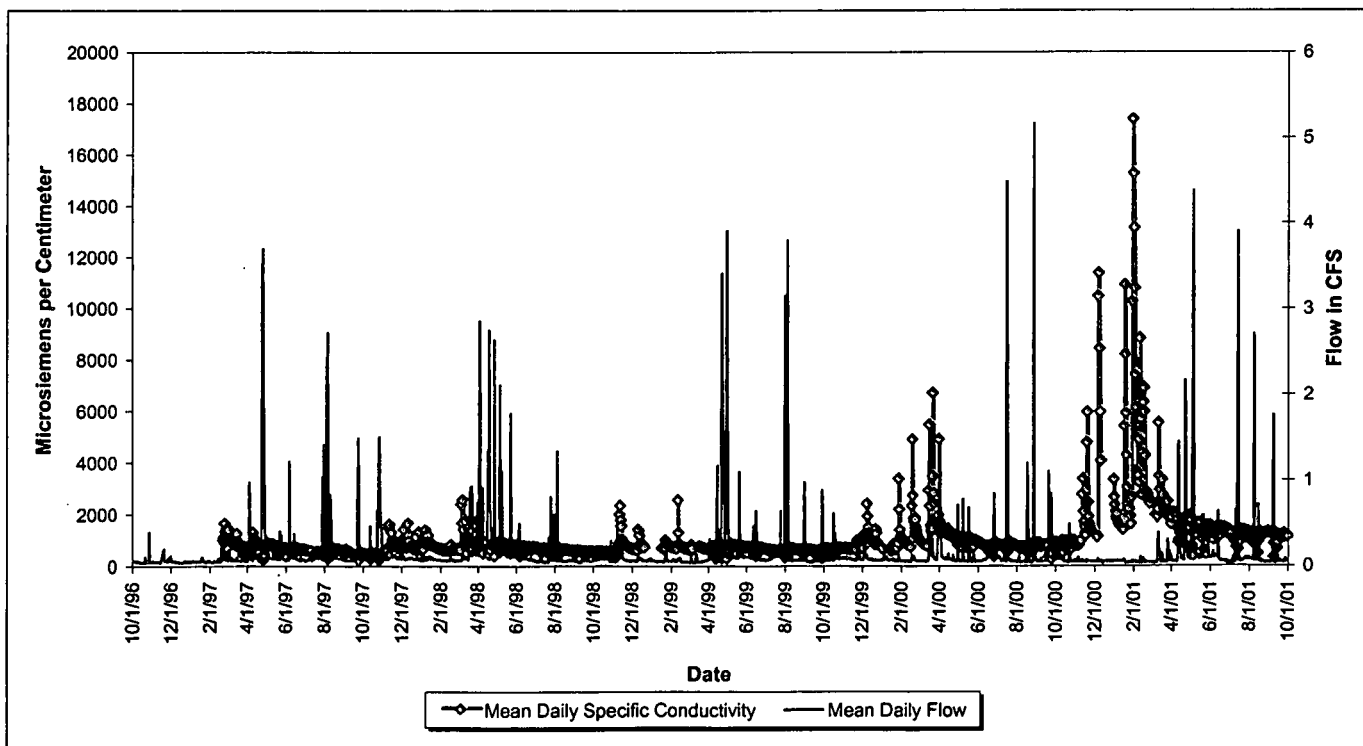


Figure 11-10. Mean Daily Specific Conductivity at GS10: Water Years 1997-2001.

Figure 11-11 and Figure 11-12 show the mean daily pH varying between 7.0 and 8.4.

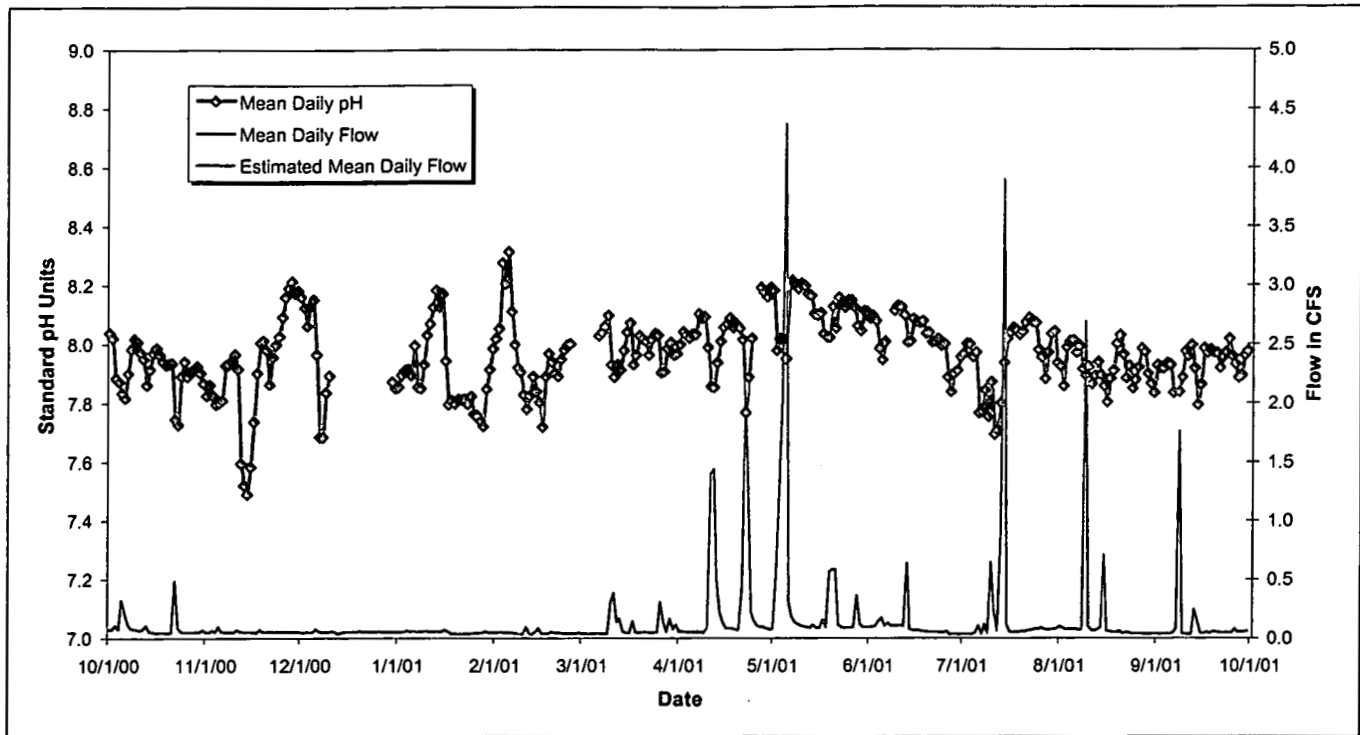


Figure 11-11. Mean Daily pH at GS10: Water Year 2001.

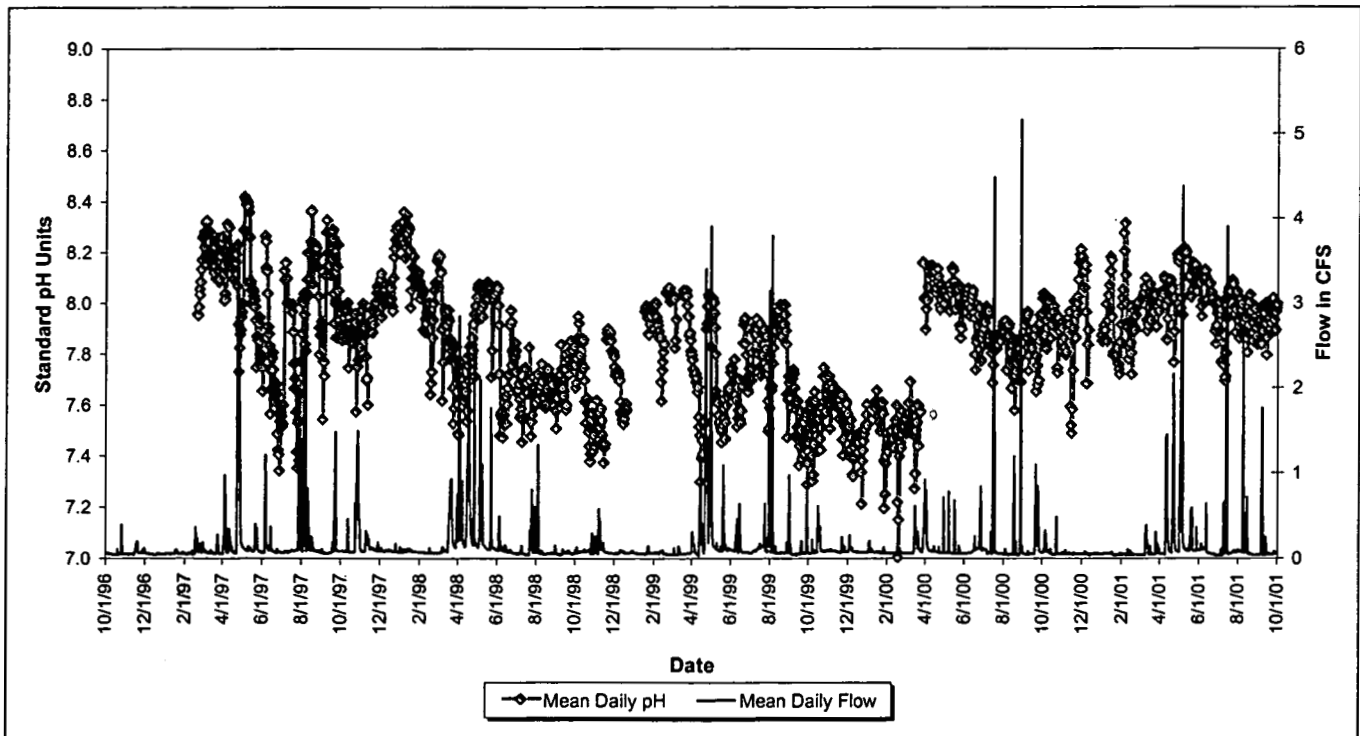


Figure 11-12. Mean Daily pH at GS10: Water Years 1997-2001.

Finally, Figure 11-13 and Figure 11-14 show elevated turbidity measurements tracking the flow rate in time and magnitude, as expected when higher flow rates transport more suspended solids.

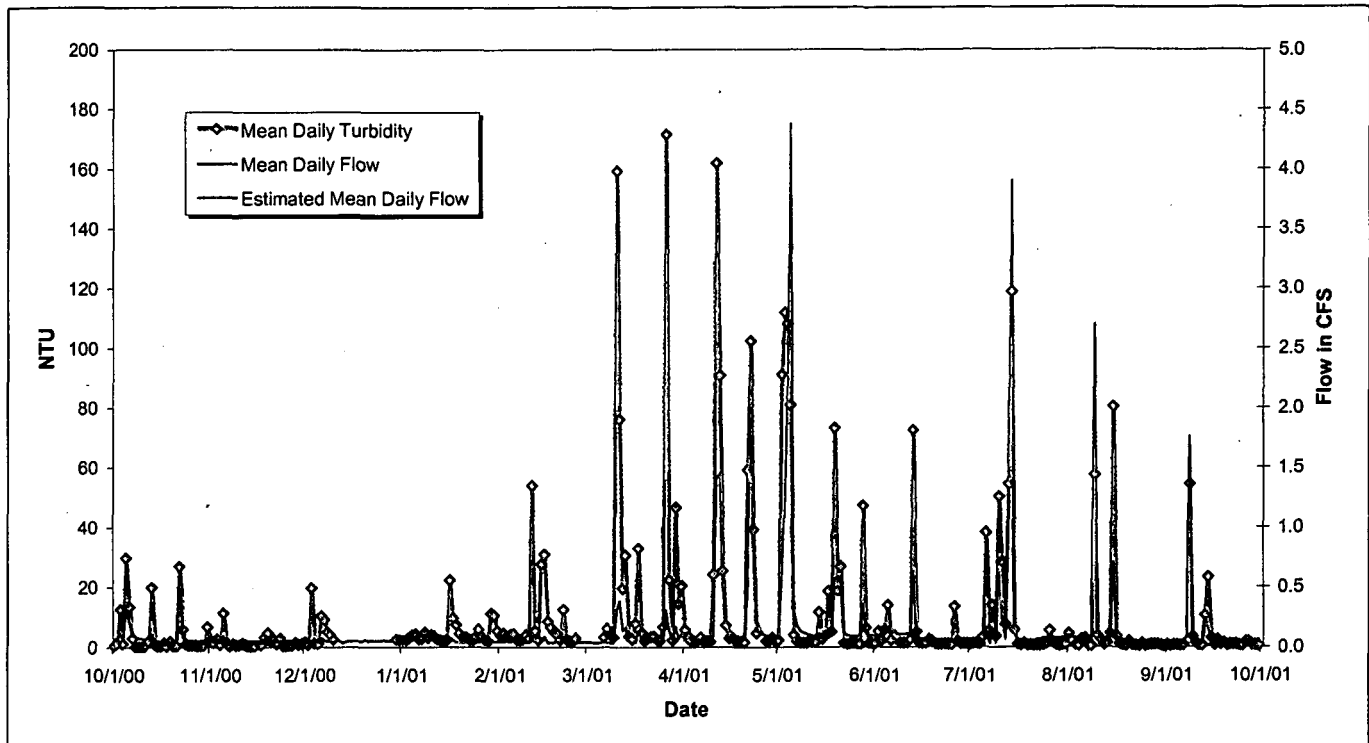


Figure 11-13. Mean Daily Turbidity at GS10: Water Year 2001.

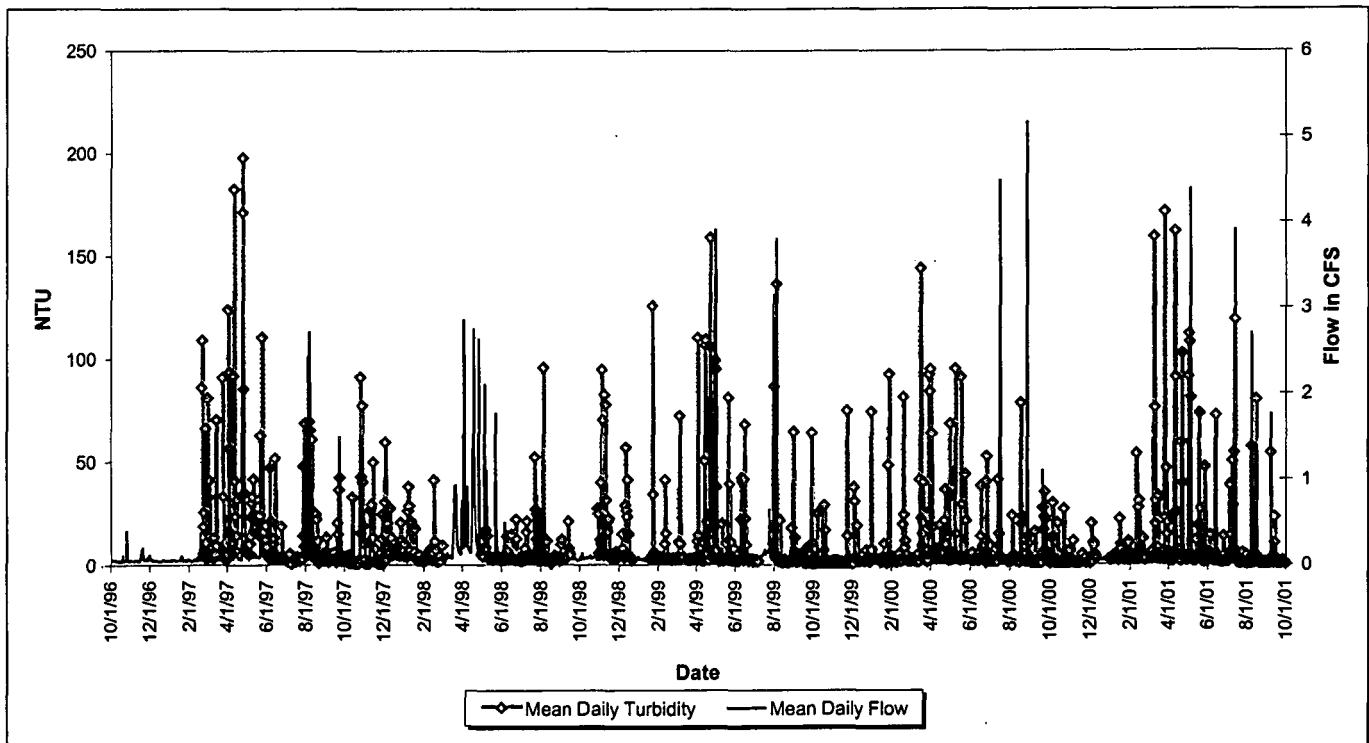


Figure 11-14. Mean Daily Turbidity at GS10: Water Years 1997-2001.

11.3.2 Location SW022

Monitoring location SW022 is located at the end of Central Avenue Ditch just upstream of the diversion structure that routes flows to S. Walnut Cr. and GS10. Figure 3-101 shows the drainage area for SW022. The 100, 400, 600, 800, and 900 areas all contribute flow to SW022.

Prior to WY00, SW022 collected storm-event rising-limb flow-paced composite samples.²⁷ Starting in WY00, SW022 began collecting more representative continuous flow-paced composite samples. Therefore, radionuclide evaluation below is performed separately for each sample type, and only continuous flow-paced sample data is evaluated below.

Monitoring data collected at SW022 show moderate median Pu and Am activities (Table 11-8), although several higher results have been obtained (Figure 11-18). Figure 11-15 and Figure 11-16 show the Pu and Am UTL plots, respectively. During WY99-01, a single Am result exceeded the calculated UTL. This result is from a sample associated with large storm events on both 6/26/00 and 7/16-7/17/00. Subsequent samples showed more 'normal' Am levels. Although a distribution was not determined for Pu, Figure 11-18 shows a single 'suspect' value. This Pu value is associated with the same sample as noted above; subsequent samples showed more 'normal' Pu levels.

Monitoring data collected at SW022 show low median total uranium activities (Table 11-8). Figure 11-17 shows that none of the total uranium results were greater than the calculated UTLs.

The temporal variation of suspended solids activity (Figure 11-19) shows a noticeable trend downward, though the data show significant variability.

Table 11-8. Summary Statistics for Continuous Flow-Paced Radionuclide Results from SW022 in WY99-01.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	18	0.088	0.145	0.546	^c
Am-241	18	0.015	0.040	0.144	0.138 ^a
Total Uranium	18	0.630	1.109	1.246	1.533 ^a / 1.445 ^b

Note: ^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

²⁷ Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

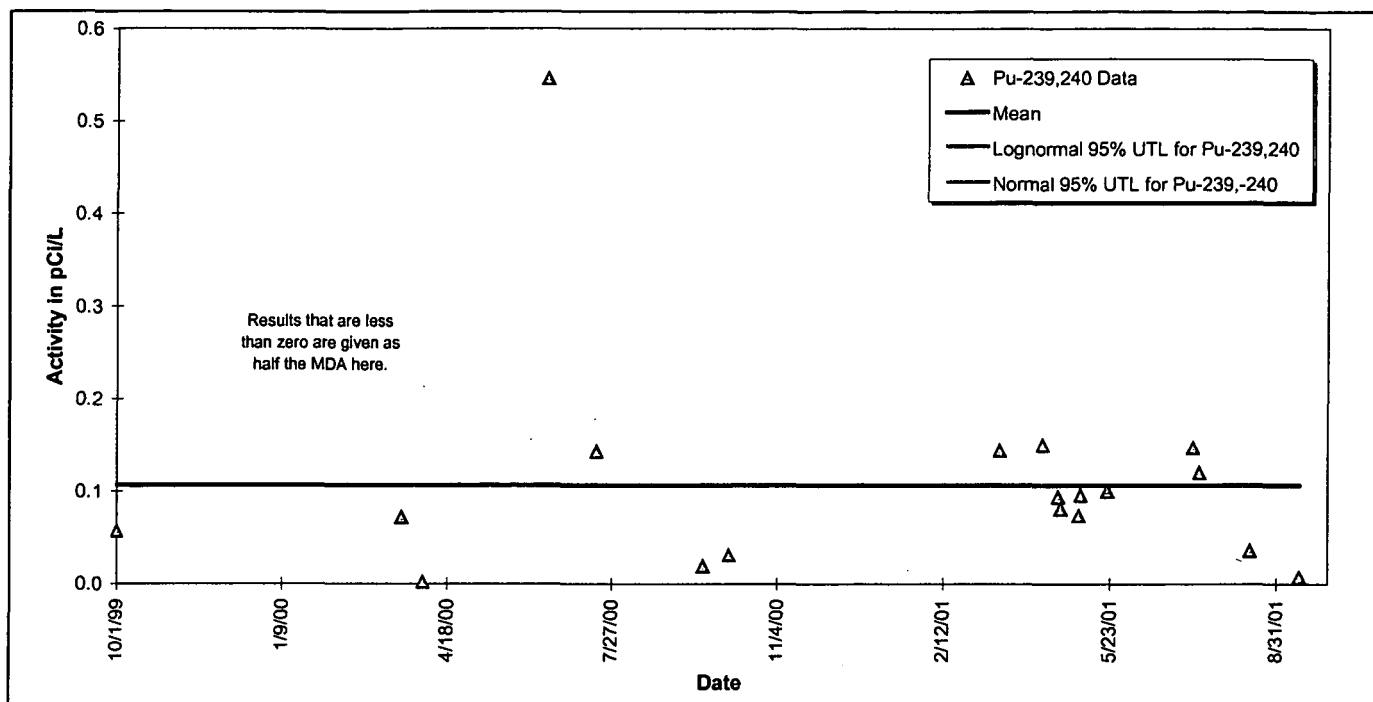


Figure 11-15. Continuous Flow-Paced 95% UTL Plot for Pu-239,240 at SW022: WY99-01.

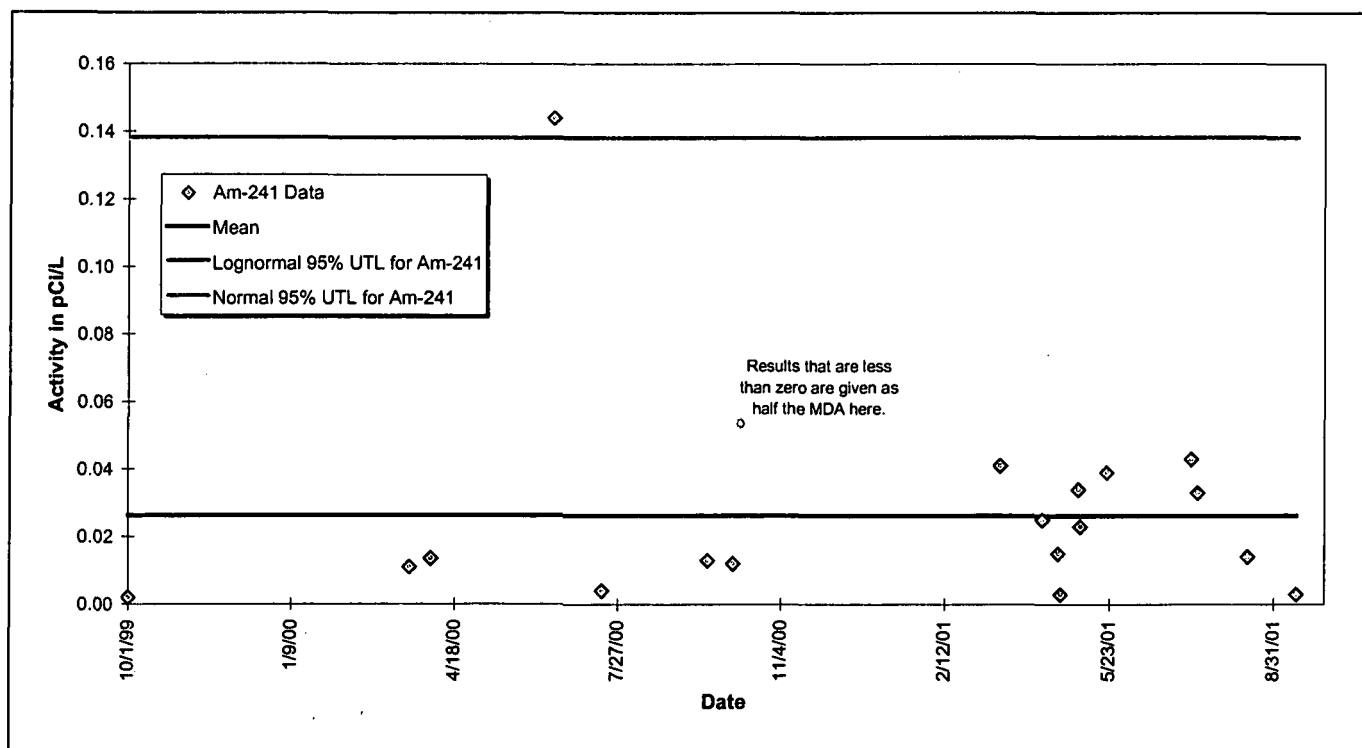


Figure 11-16. Continuous Flow-Paced 95% UTL Plot for Am-241 at SW022: WY99-01.

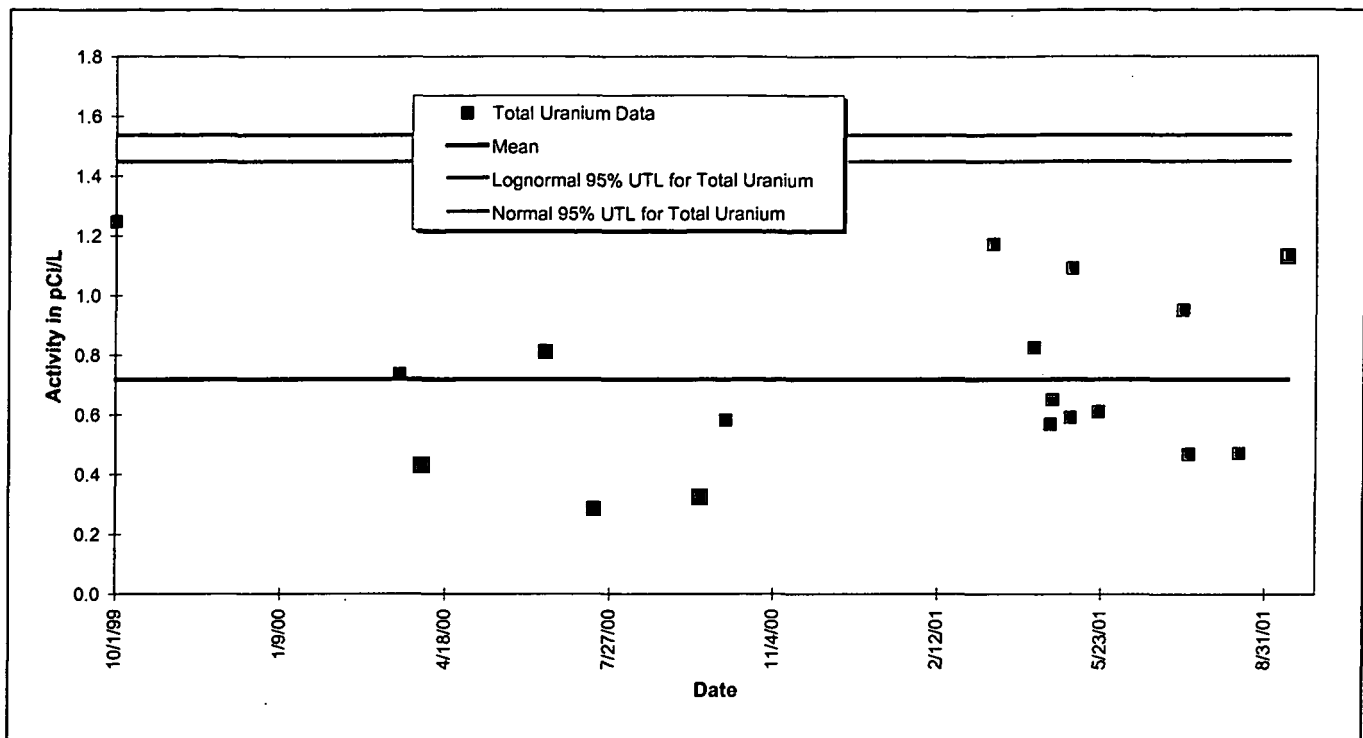


Figure 11-17. Continuous Flow-Paced 95% UTL Plot for Total Uranium at SW022: WY99-01.

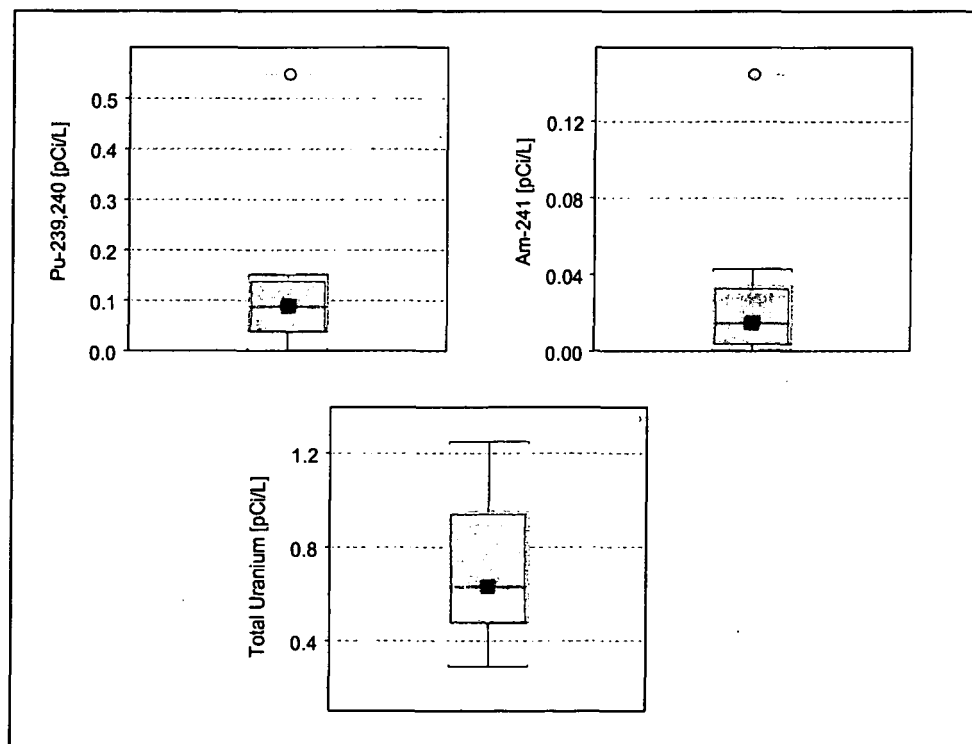


Figure 11-18. Continuous Flow-Paced Radionuclide Box Plots for SW022: WY99-01.

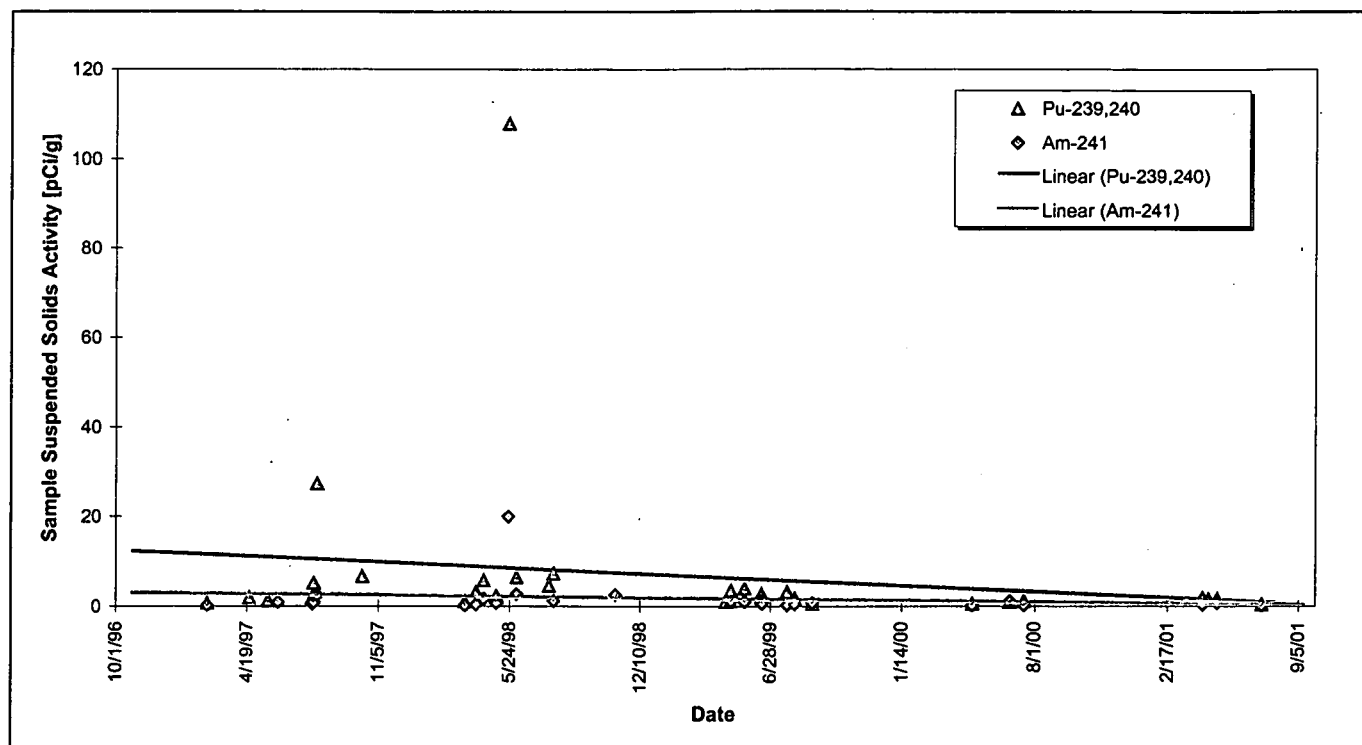


Figure 11-19. Temporal Variation of Suspended Solids Activity at SW022: WY97-01.

11.3.3 Location SW027

Monitoring location SW027 is located at the end of the SID at the inlet to Pond C-2. Figure 3-104 shows the drainage area for SW027. The 100, 400, 600, 800, and 900 areas all contribute flow to SW027.

Monitoring data collected at SW027 show moderate Pu and Am activities, though some higher results have been obtained (Table 11-9 and Figure 11-23). Figure 11-20 and Figure 11-21 show the UTL plots for Pu and Am, respectively. During WY99-01, two Pu and Am results exceeded the calculated UTL, with significant variability in the results. These higher activities resulted in reportable 30-day averages under the POE monitoring objective (Section 12). In response, the Site was required to perform a source evaluation to address these reportable values. A summary of the extensive investigations is given in Section 6 of the Final Automated Surface-Water Monitoring Report: Water Years 1997 – 2000.

Table 11-9 shows moderate uranium activities at SW027. A single result exceeded the UTL (Figure 11-22) by a very small amount, and was considerably below the POE action level (11 pCi/L total uranium).

SW027 shows no significant temporal trend in suspended solids activity (Figure 11-24) for the few TSS results obtained.

Table 11-9. Summary Statistics for Radionuclide Results from SW027: Water Years 1999-2001.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	25	0.016	0.100	1.030	0.380 ^a
Am-241	25	0.008	0.029	0.177	0.097 ^a
Total Uranium	25	1.713	2.234	3.673	3.50 ^b

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.

^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

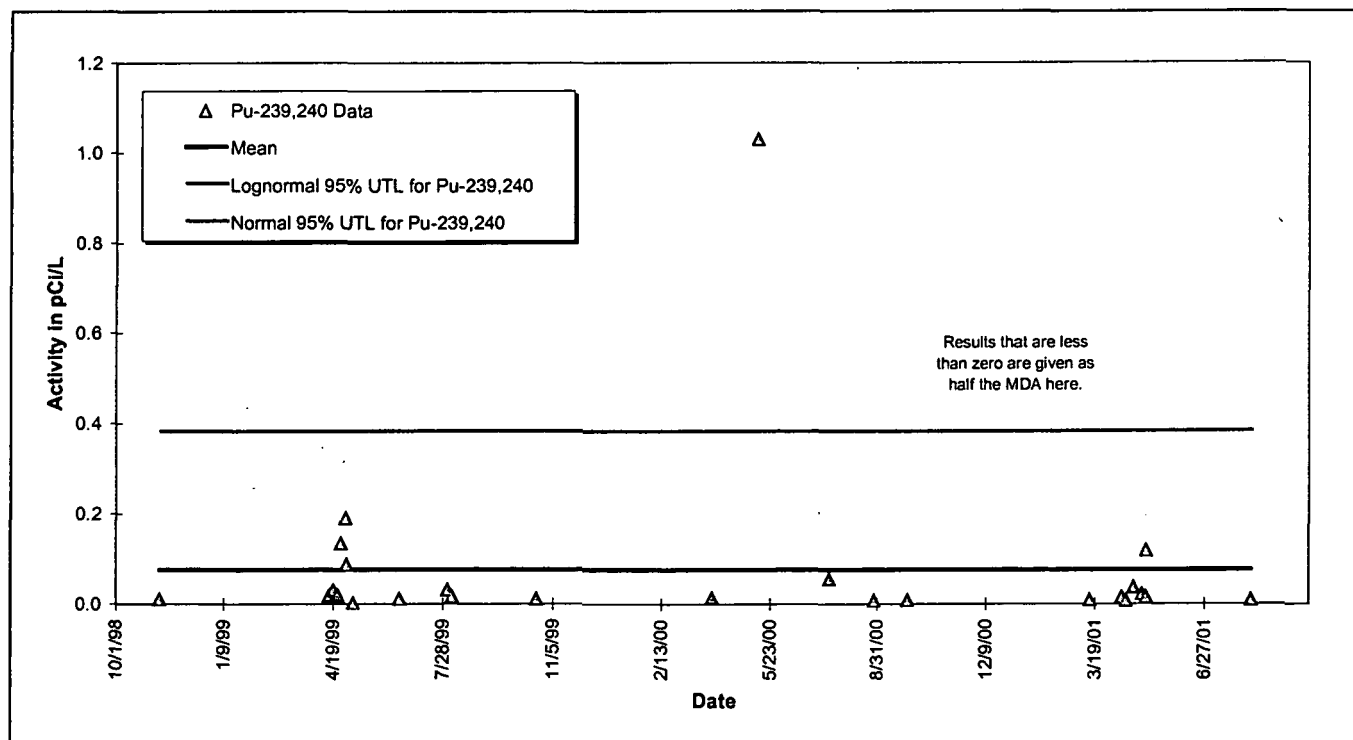


Figure 11-20. 95% UTL Plot for Pu-239,240 at SW027: WY99-01.

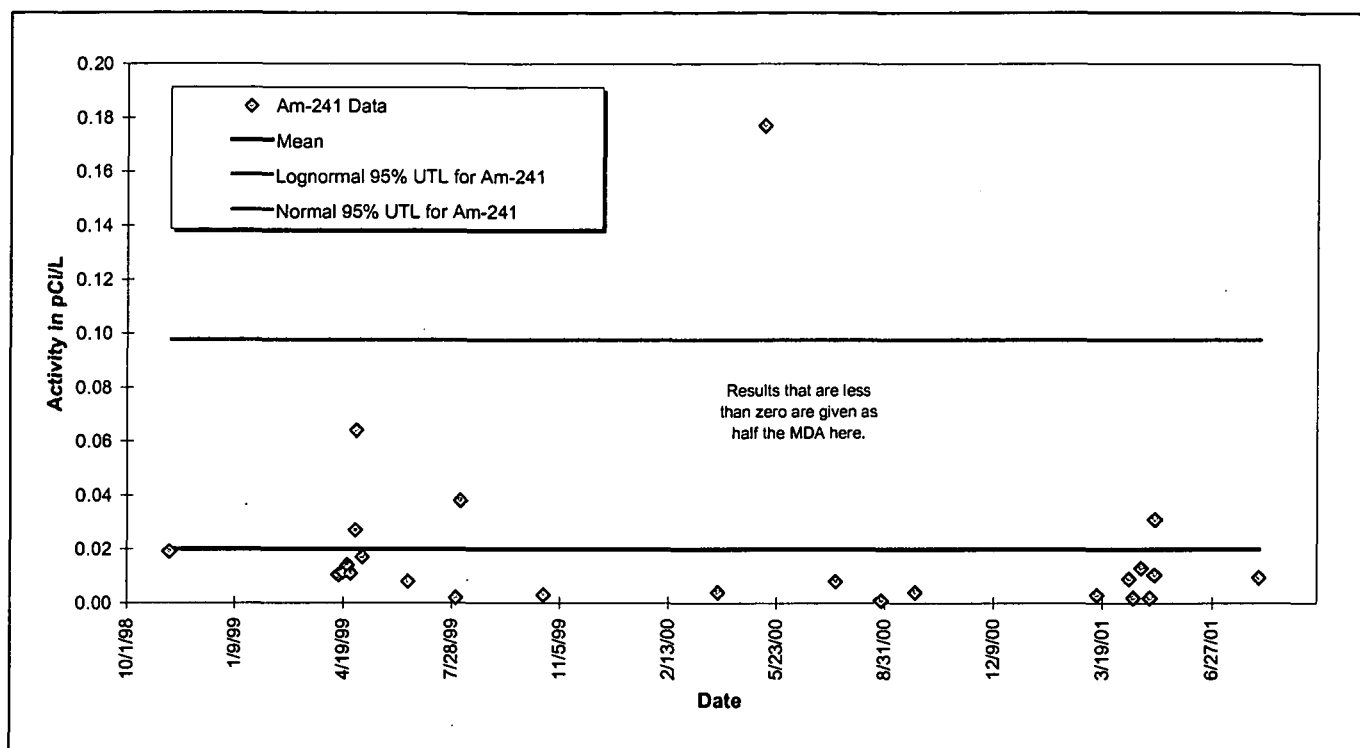


Figure 11-21. 95% UTL Plot for Am-241 at SW027: WY99-01.

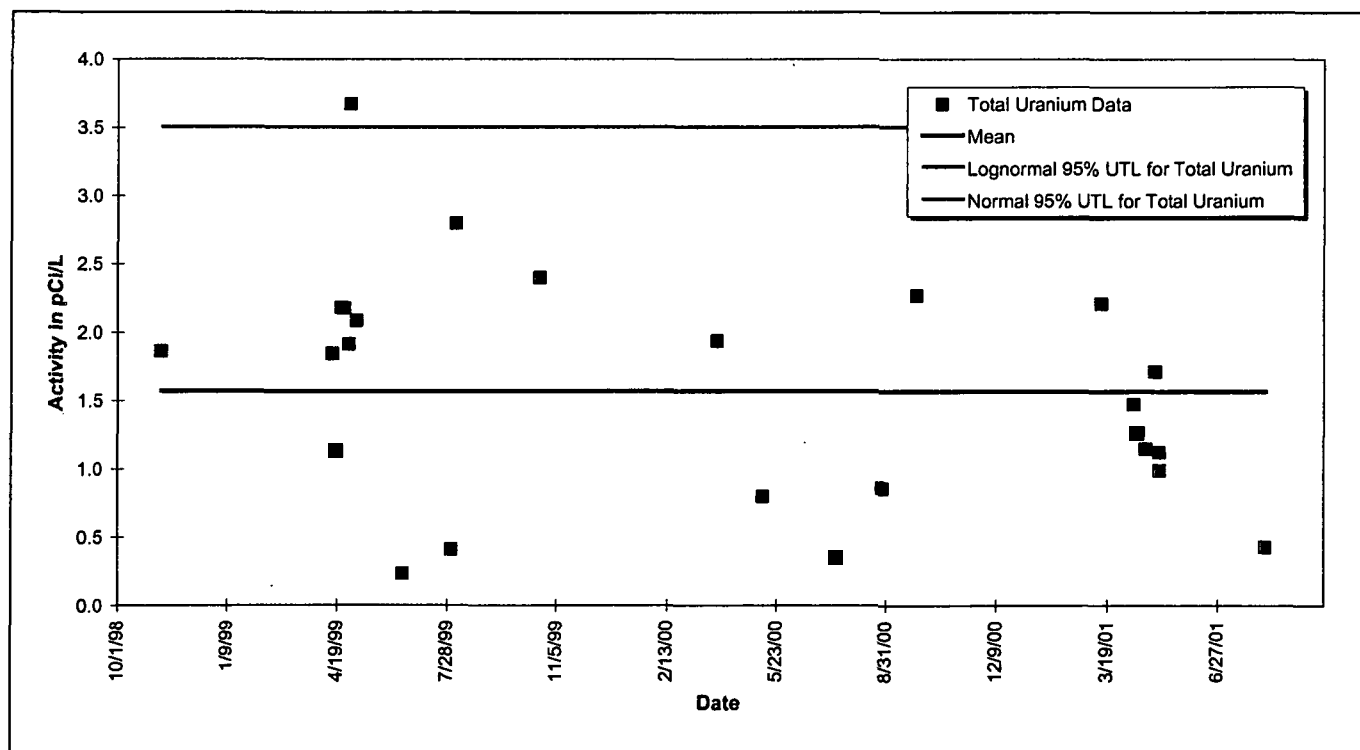


Figure 11-22. 95% UTL Plot for Total Uranium at SW027: WY99-01.

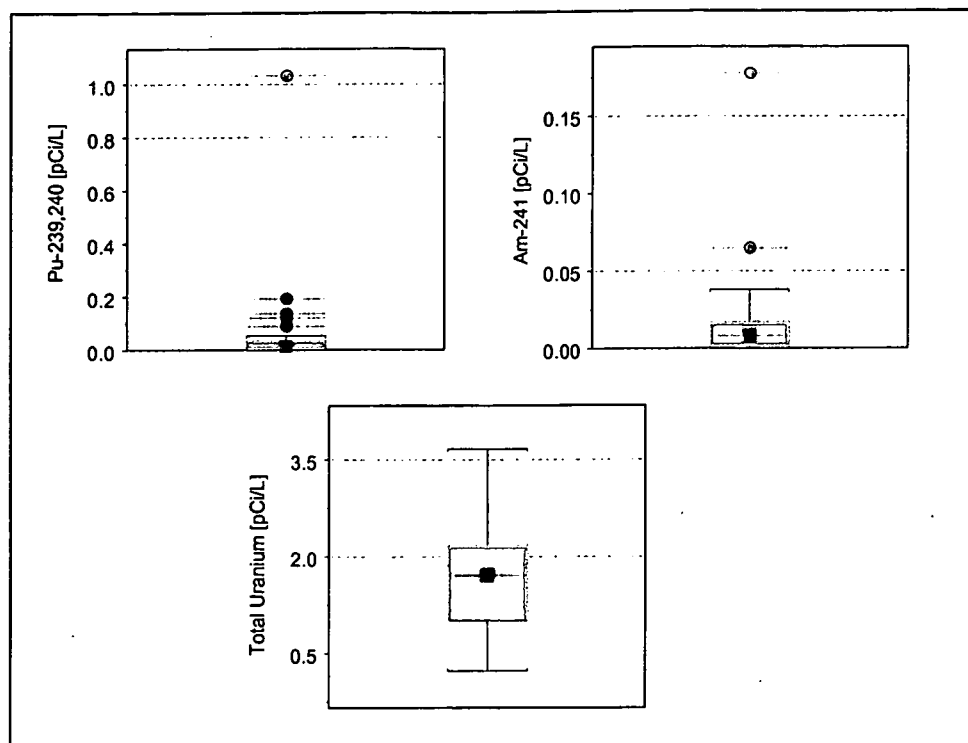


Figure 11-23. Radionuclide Box Plots for SW027: WY99-01.

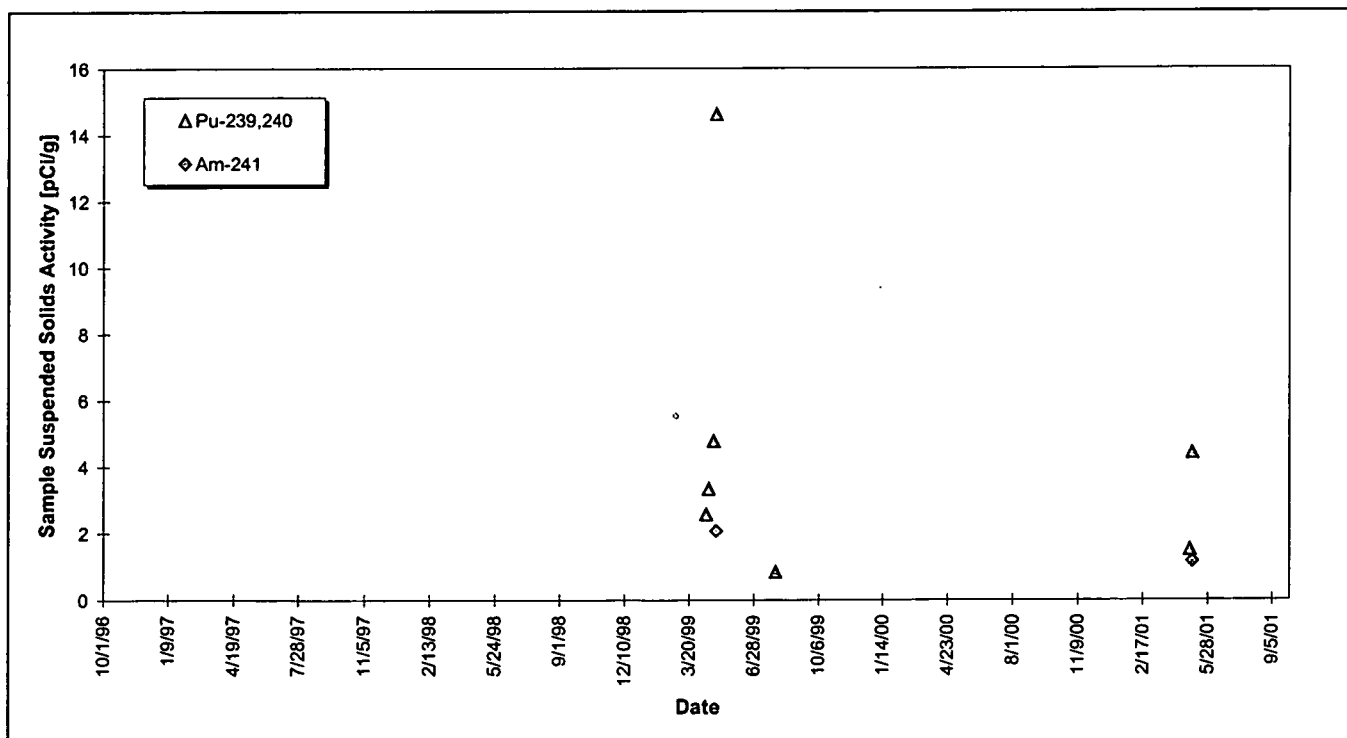


Figure 11-24. Temporal Variation of Suspended Solids Activity at SW027: WY97-01.

Mean daily water-quality parameter data are plotted in Figure 11-25 through Figure 11-32 along with the mean daily flow rate. Figure 11-25 and Figure 11-27 show the expected annual variation in water temperature.

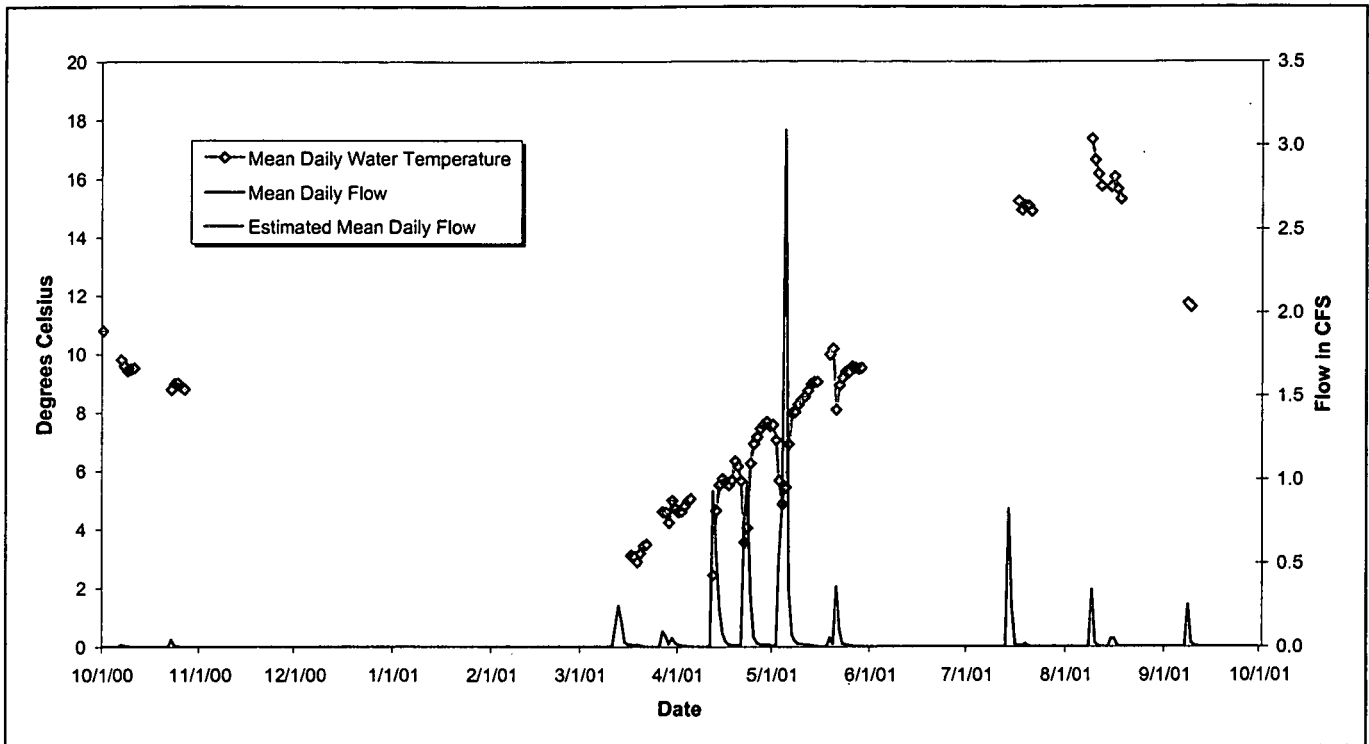


Figure 11-25. Mean Daily Water Temperature at SW027: Water Year 2001.

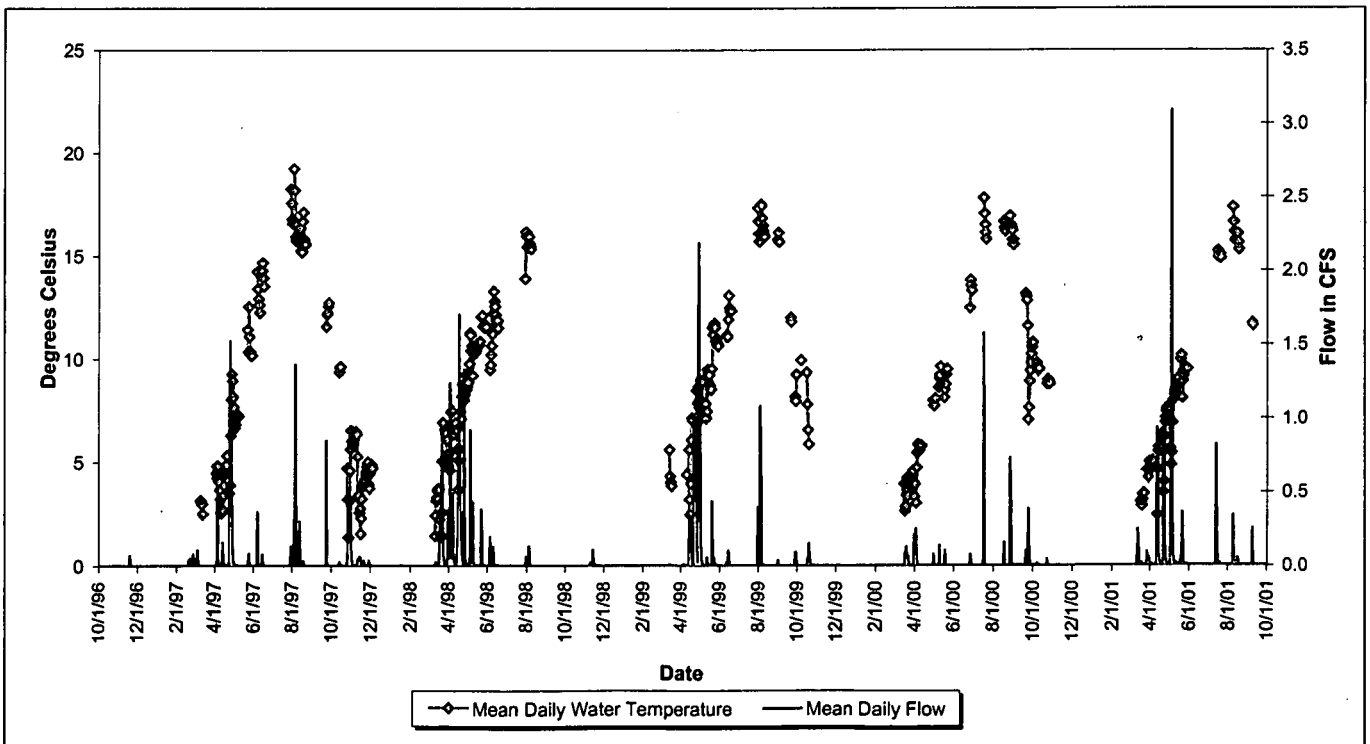


Figure 11-26. Mean Daily Water Temperature at SW027: Water Years 1997-2001.

Figure 11-27 and Figure 11-28 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations.

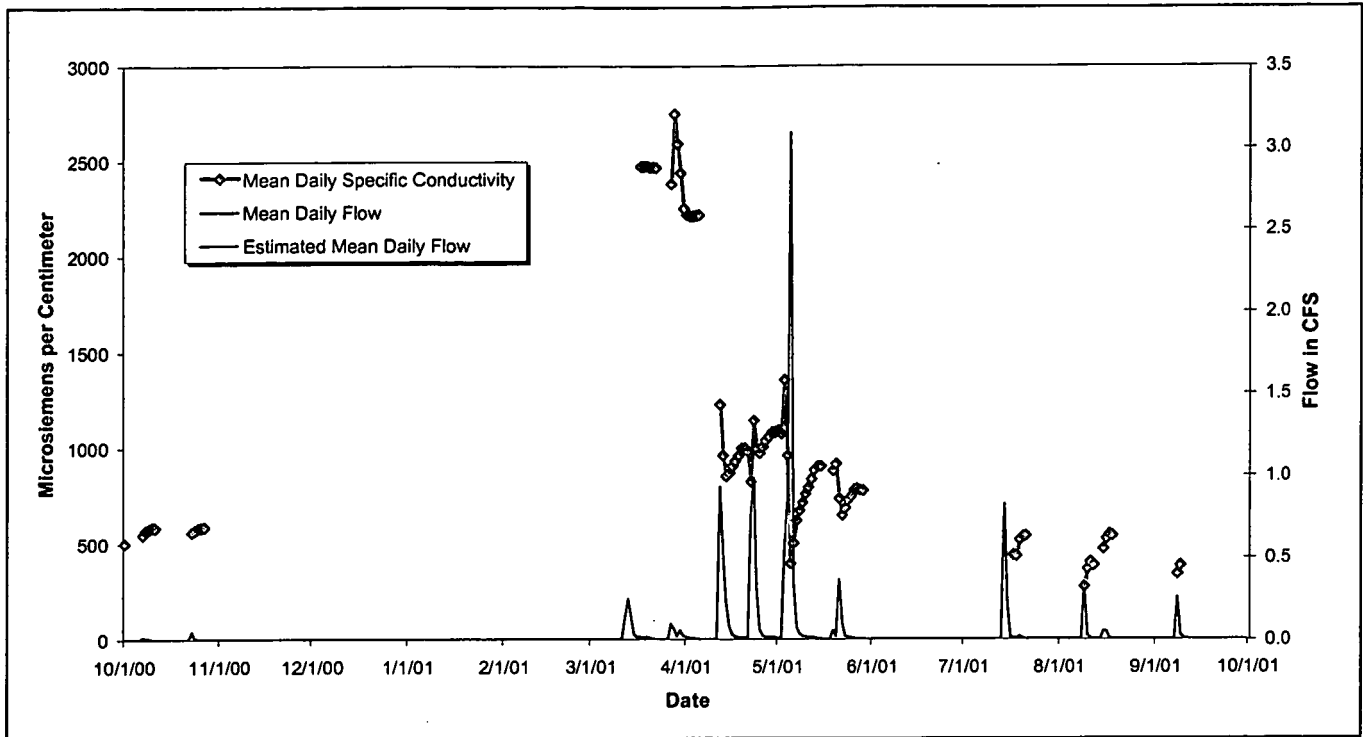


Figure 11-27. Mean Daily Specific Conductivity at SW027: Water Year 2001.

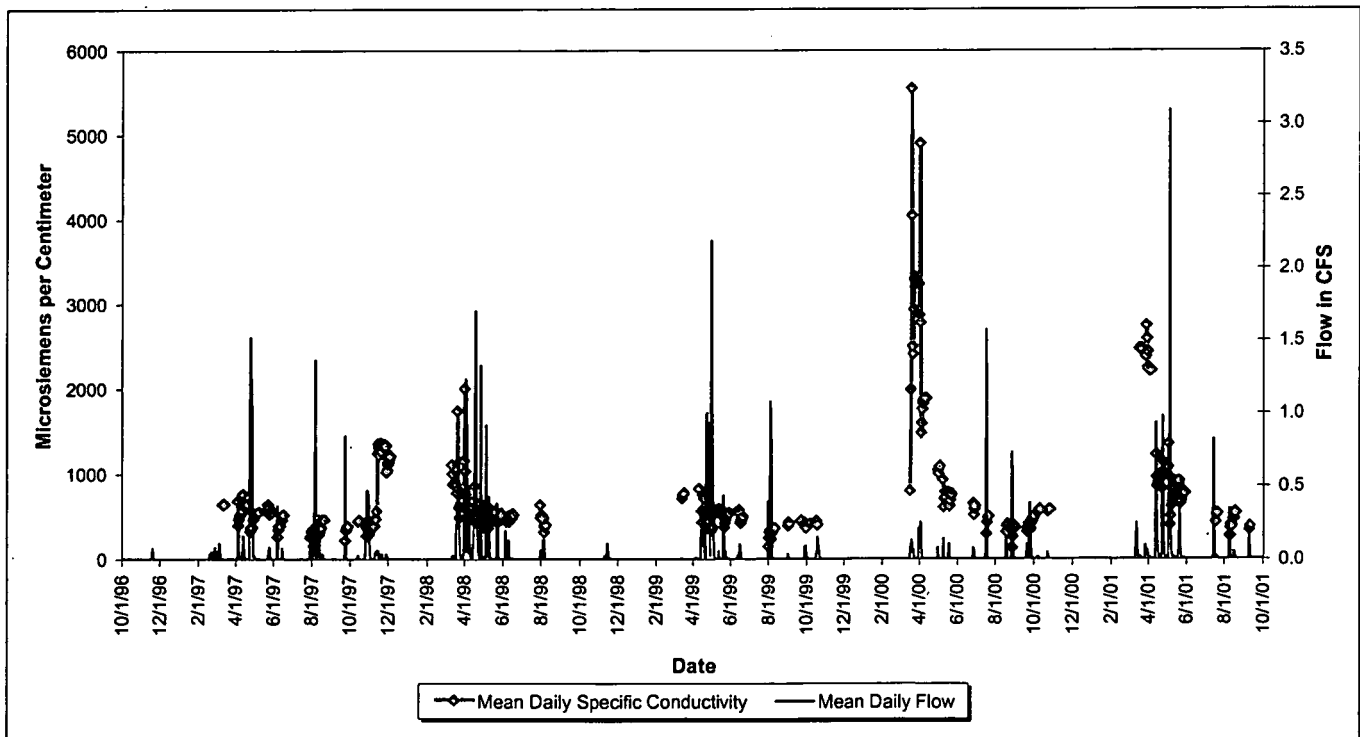


Figure 11-28. Mean Daily Specific Conductivity at SW027: Water Years 1997-2001.

Figure 11-29 and Figure 11-30 show the mean daily pH varying between 7.3 and 8.2.

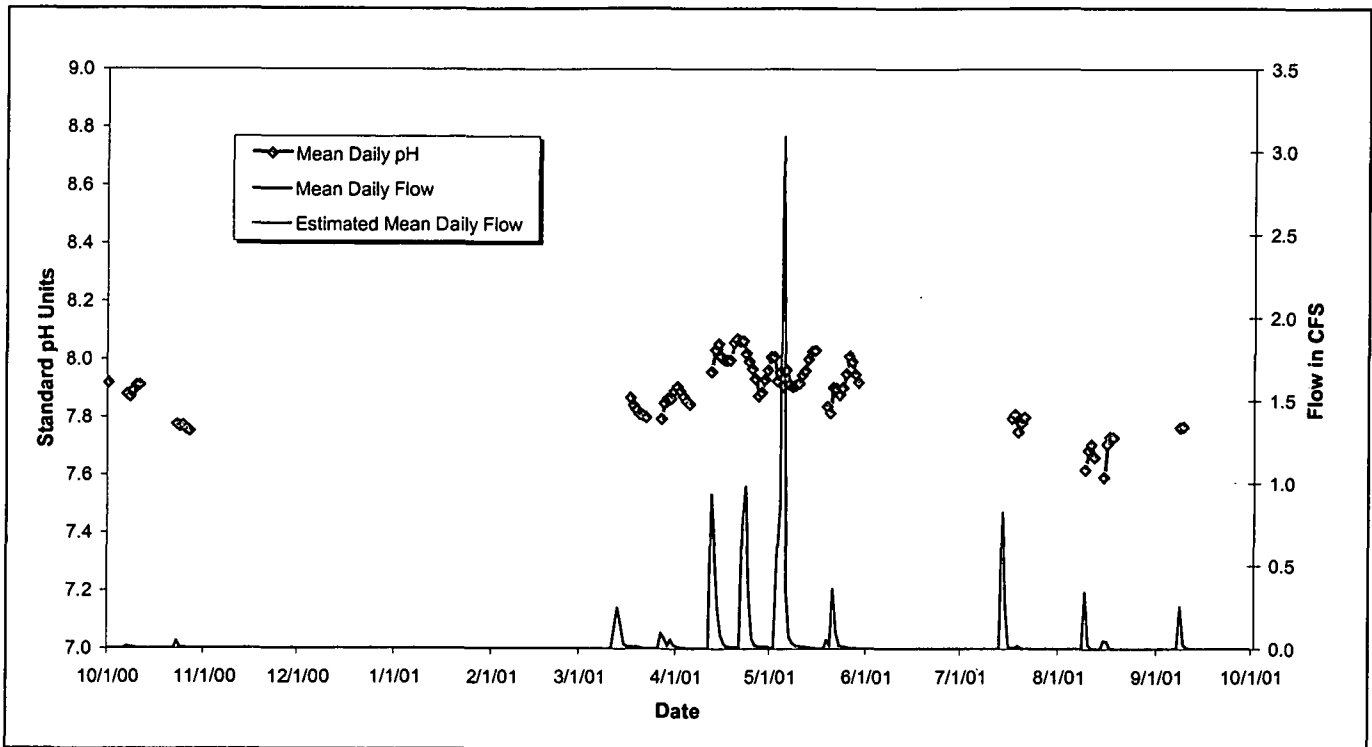


Figure 11-29. Mean Daily pH at SW027: Water Year 2001.

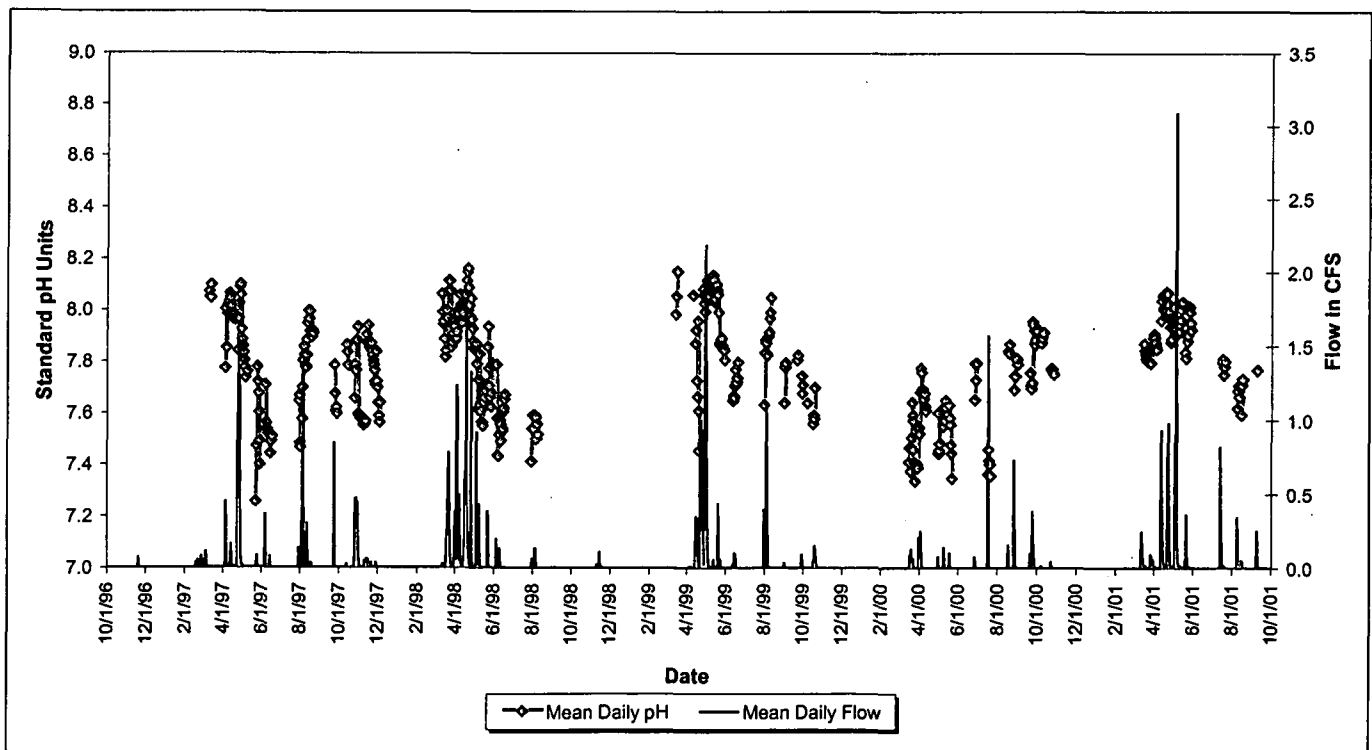


Figure 11-30. Mean Daily pH at SW027: Water Years 1997-2001.

Finally, Figure 11-31 and Figure 11-32 show elevated turbidity measurements tracking the flow rate in time and magnitude, as expected when higher flow rates transport more suspended solids.

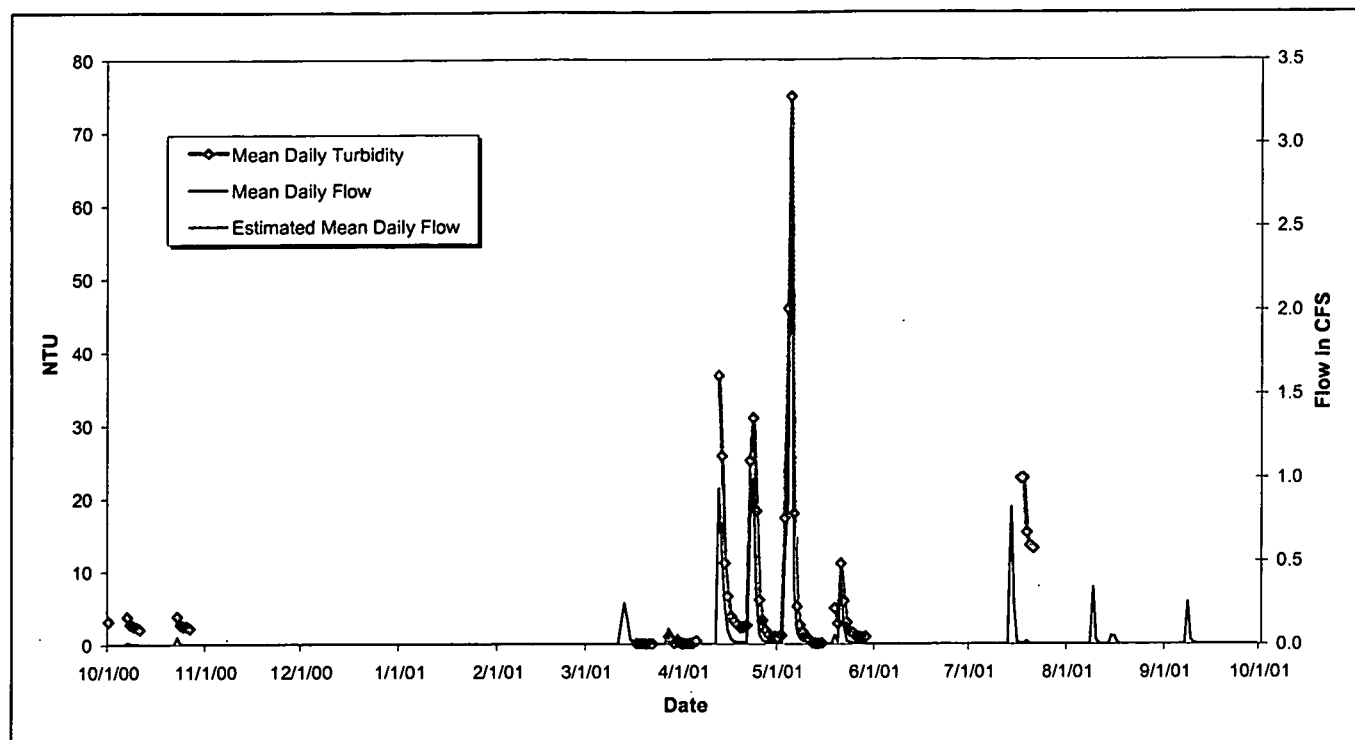


Figure 11-31. Mean Daily Turbidity at SW027: Water Year 2001.

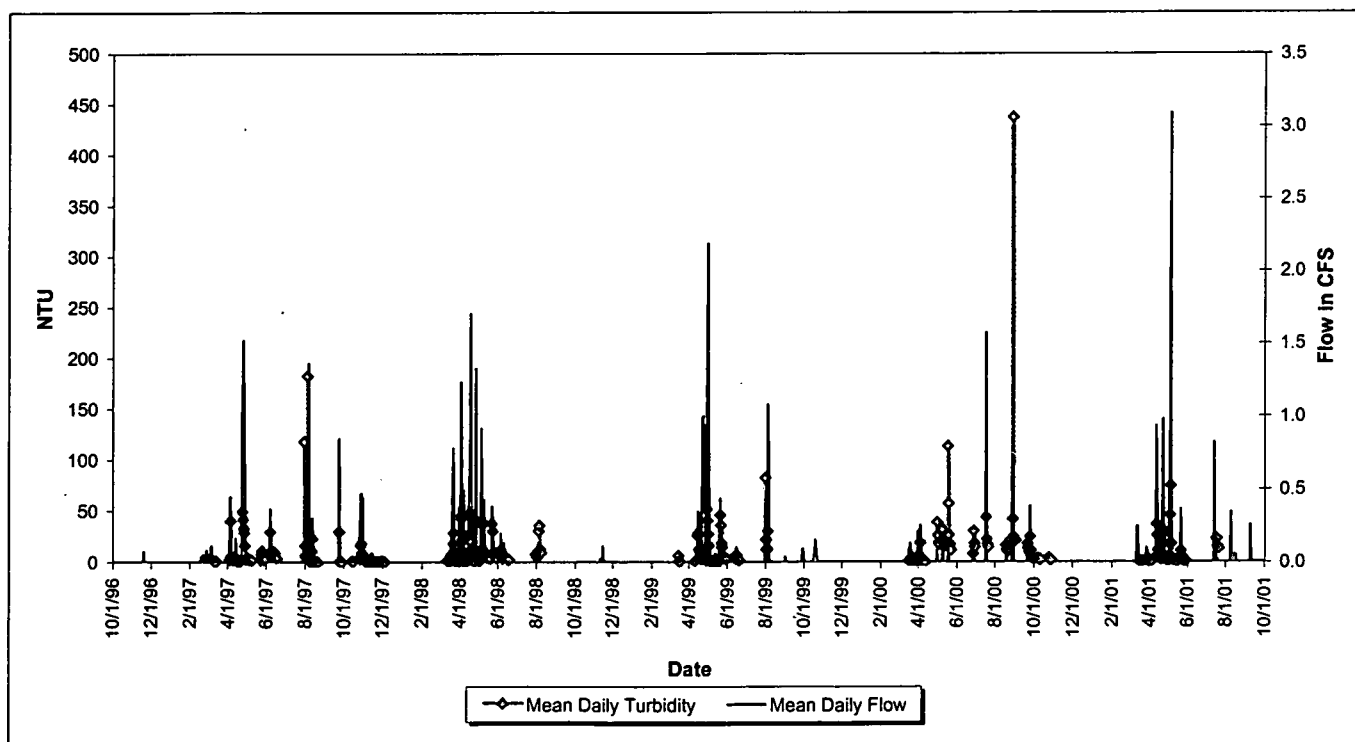


Figure 11-32. Mean Daily Turbidity at SW027: Water Years 1997-2001.

11.3.4 Location SW091

Monitoring location SW091 is located at the end of a small drainage swale just upstream of N. Walnut Creek. Figure 3-109 shows the drainage area for SW091. The area east of the Solar Ponds contributes runoff to SW091.

Monitoring data collected at SW091 show moderate Pu and Am activities (Table 11-10). Figure 11-33 and Figure 11-34 show the UTL plots for Pu and Am, respectively. During WY99-01, no Pu or Am results exceeded the calculated UTL for the small number of data points.

Monitoring data collected at SW119 show moderate median total uranium activities (Table 11-10). Figure 11-35 shows that none of the total uranium results were greater than the calculated UTLs for the small number of data points.

The temporal variation of suspended solids activity (Figure 11-37) shows no significant change.

Table 11-10. Summary Statistics for Radionuclide Results from SW091: Water Years 1999-2001.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	6	0.023	0.054	0.062	0.175 ^a / 0.112 ^b
Am-241	6	0.041	0.095	0.186	0.351 ^a
Total Uranium	6	3.437	4.393	5.878	18.10 ^a / 10.03 ^b

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.

^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

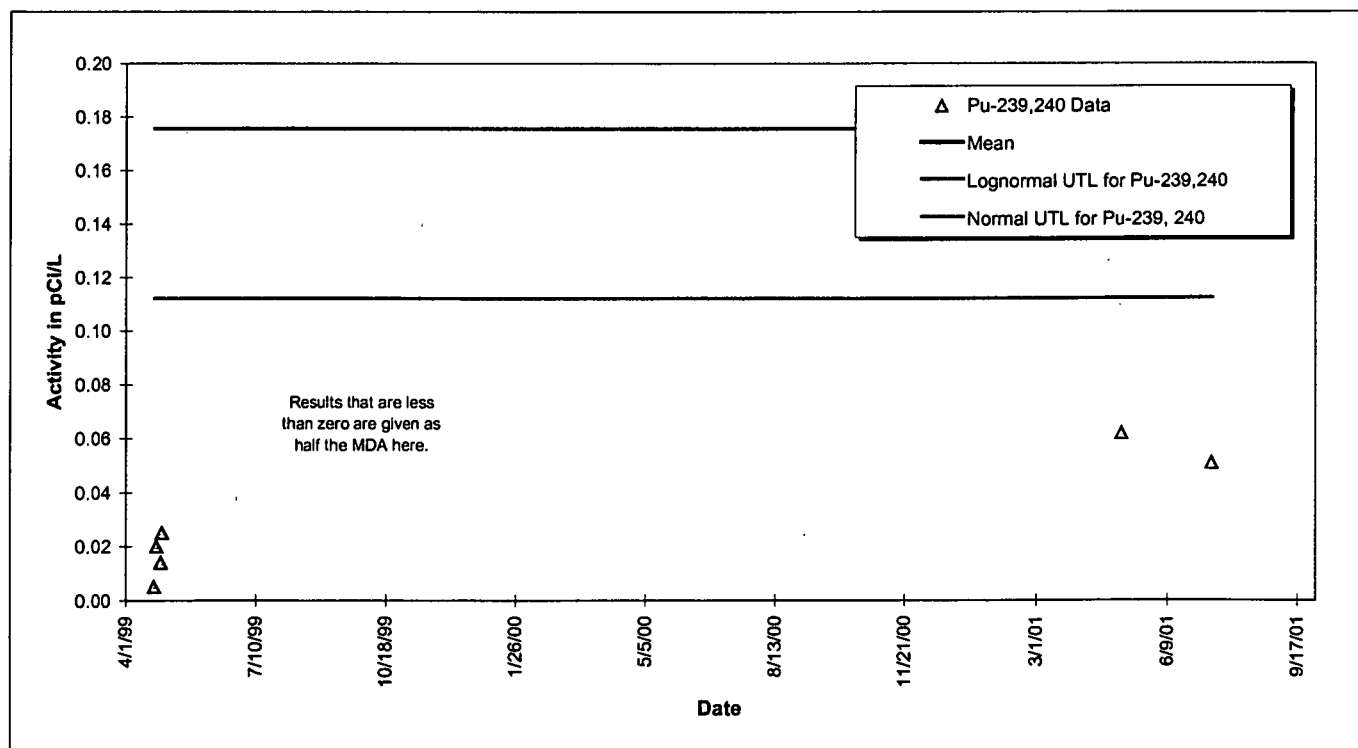


Figure 11-33. 95% UTL Plot for Pu-239,240 at SW091: WY99-01.

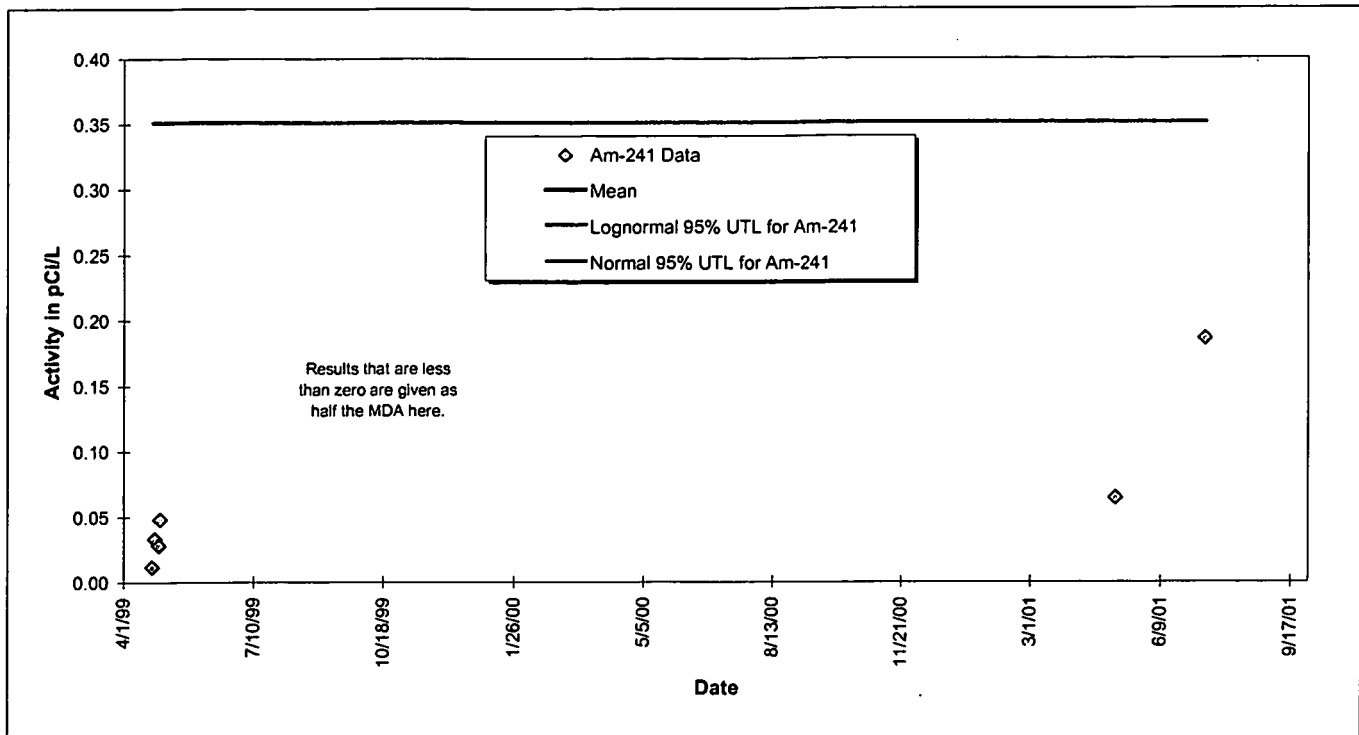


Figure 11-34. 95% UTL Plot for Am-241 at SW091: WY99-01.

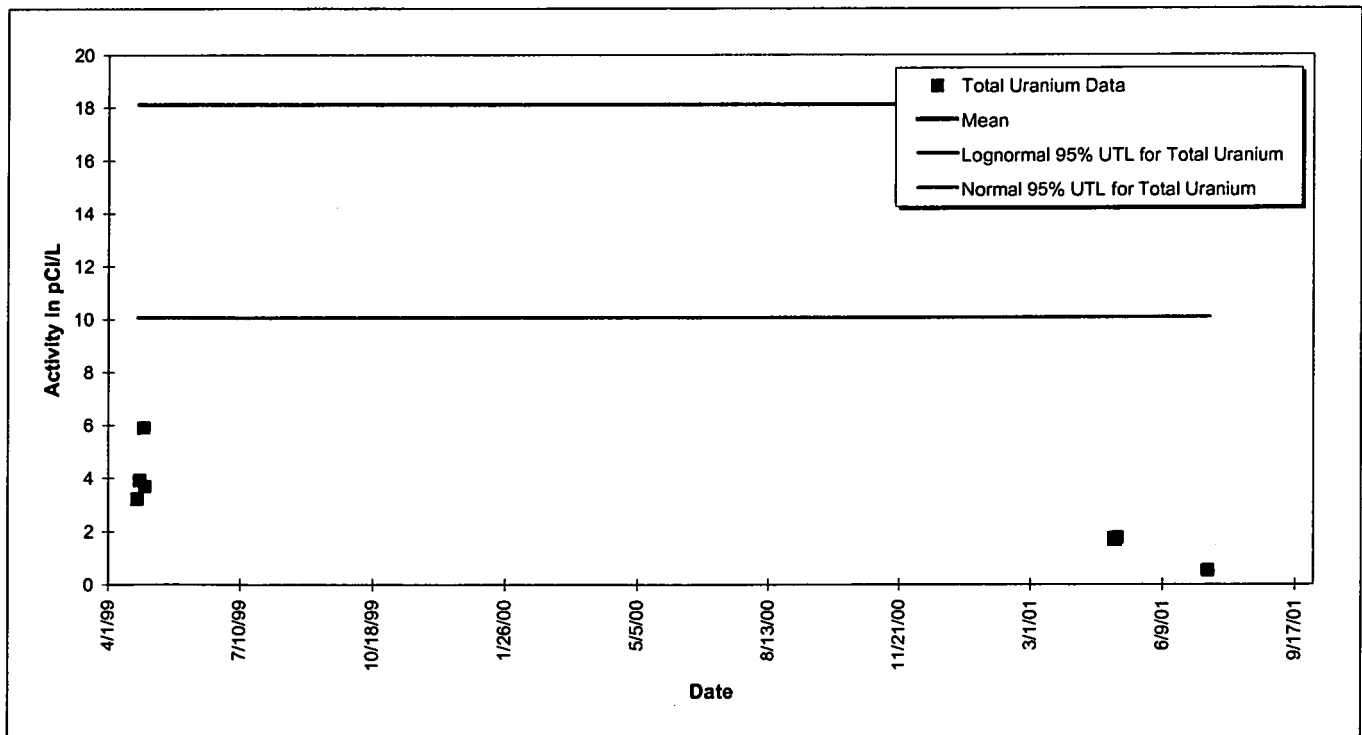


Figure 11-35. 95% UTL Plot for Total Uranium at SW091: WY99-01.

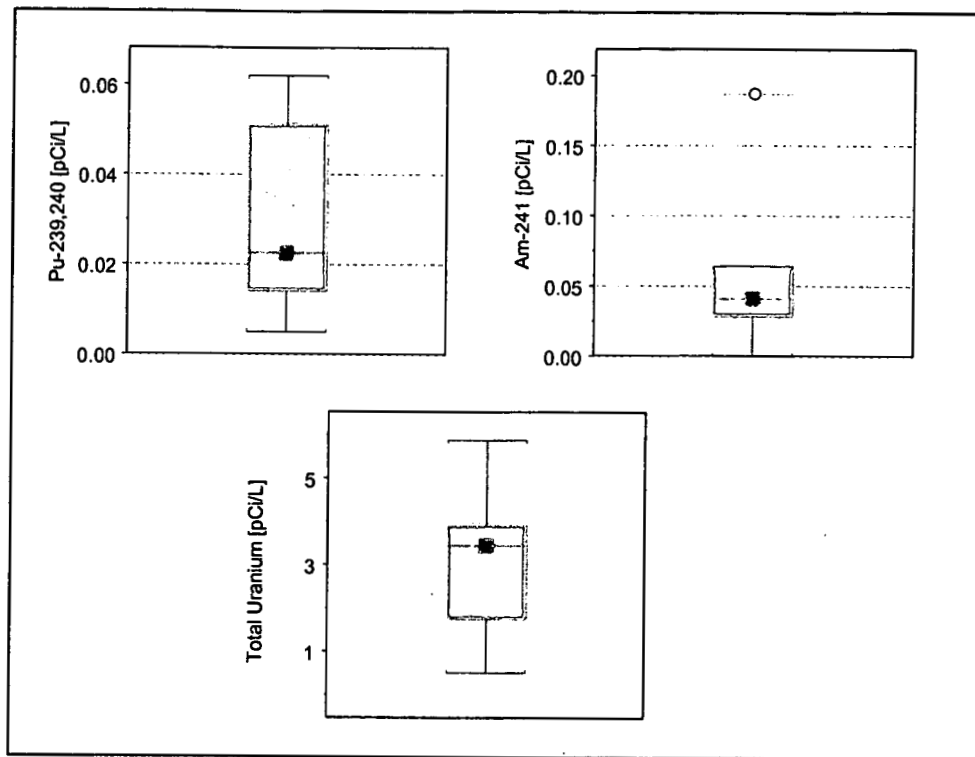


Figure 11-36. Radionuclide Box Plots for SW091: WY99-01.

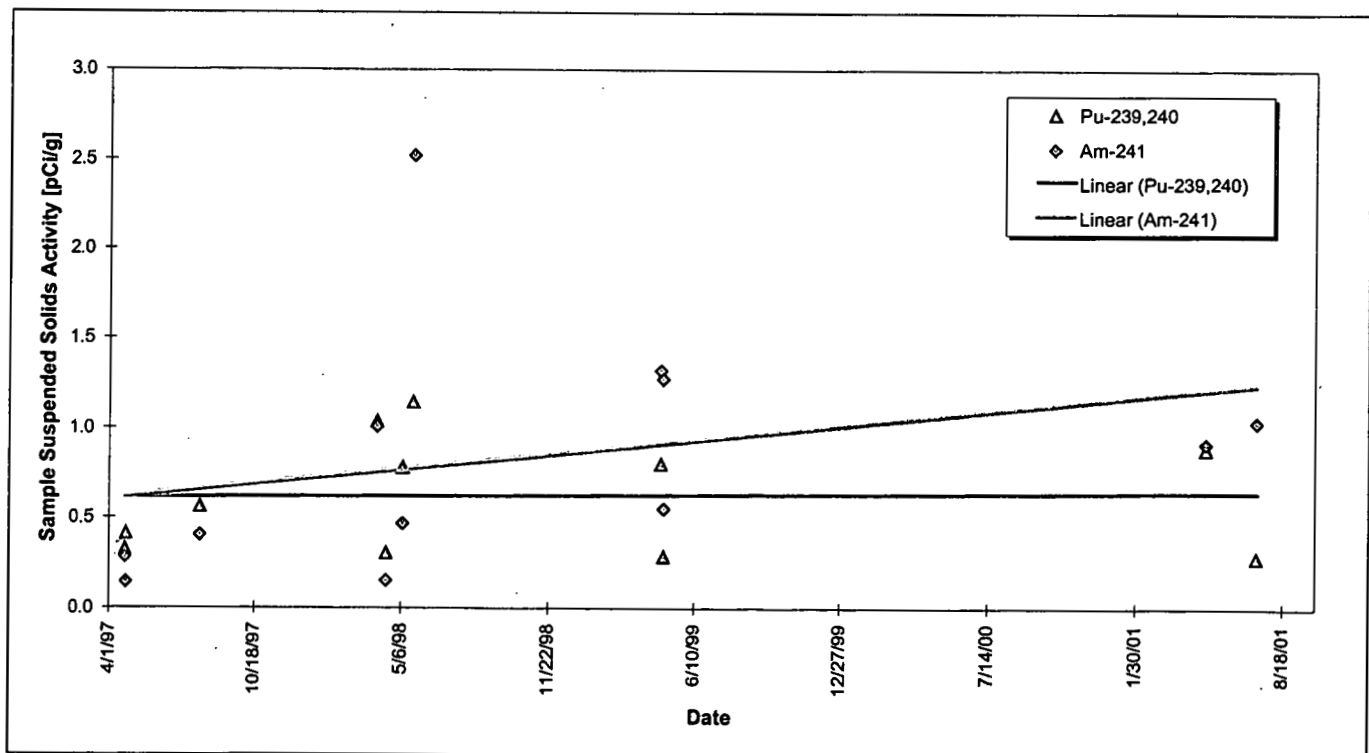


Figure 11-37. Temporal Variation of Suspended Solids Activity at SW091: WY97-01.

11.3.5 Location SW093

Monitoring location SW093 is located on N. Walnut Cr. at the perimeter of the IA 1300' upstream of the A-Series ponds. Figure 3-112 shows the drainage area for SW093. The 100, 300, 500, 700, and 900 areas all contribute flow to SW093.

Monitoring data collected at SW093 show low median Pu and Am activities (Table 11-11), although several higher results have been obtained (Table 11-11 and Figure 11-41). Figure 11-38 and Figure 11-39 show the UTL plots for Pu and Am, respectively. During WY99-01, several Am results exceeded the calculated UTL, with significant variability in the results. A distribution could not be determined for Pu, but the UTL plot also shows significant variability with numerous 'suspect' results indicated by the box plot (Figure 11-41). The highest activities resulted in reportable 30-day averages under the POE monitoring objective (Section 12) during the Summer of 1999. In response, the Site was required to perform a source evaluation to address these reportable values. A summary of the extensive investigations is given in Section 6 of the Final Automated Surface-Water Monitoring Report: Water Years 1997 – 2000.

Table 11-11 shows moderate uranium activities at SW093. The UTL plot (Figure 11-40) shows a single result greater than the calculated UTL. However, there appears to be a downward temporal trend in uranium activities. This downward trend could be due to the natural attenuation of the Solar Ponds uranium plume and/or the installation of the Solar Ponds passive treatment system.

SW093 shows a decreasing temporal trend in suspended solids activity (Figure 11-42), but the correlation is weak.

Table 11-11. Summary Statistics for Radionuclide Results from SW093: Water Years 1999-2001.

Analyte	Samples [N]	Median [pCi/L]	85 th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	108	0.007	0.029	0.312	^c
Am-241	106	0.005	0.028	0.188	0.063 ^a
Total Uranium	108	2.378	3.860	5.161	5.08 ^a

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.

^a Lognormal distribution; ^b Normal distribution; ^c Undetermined distribution.

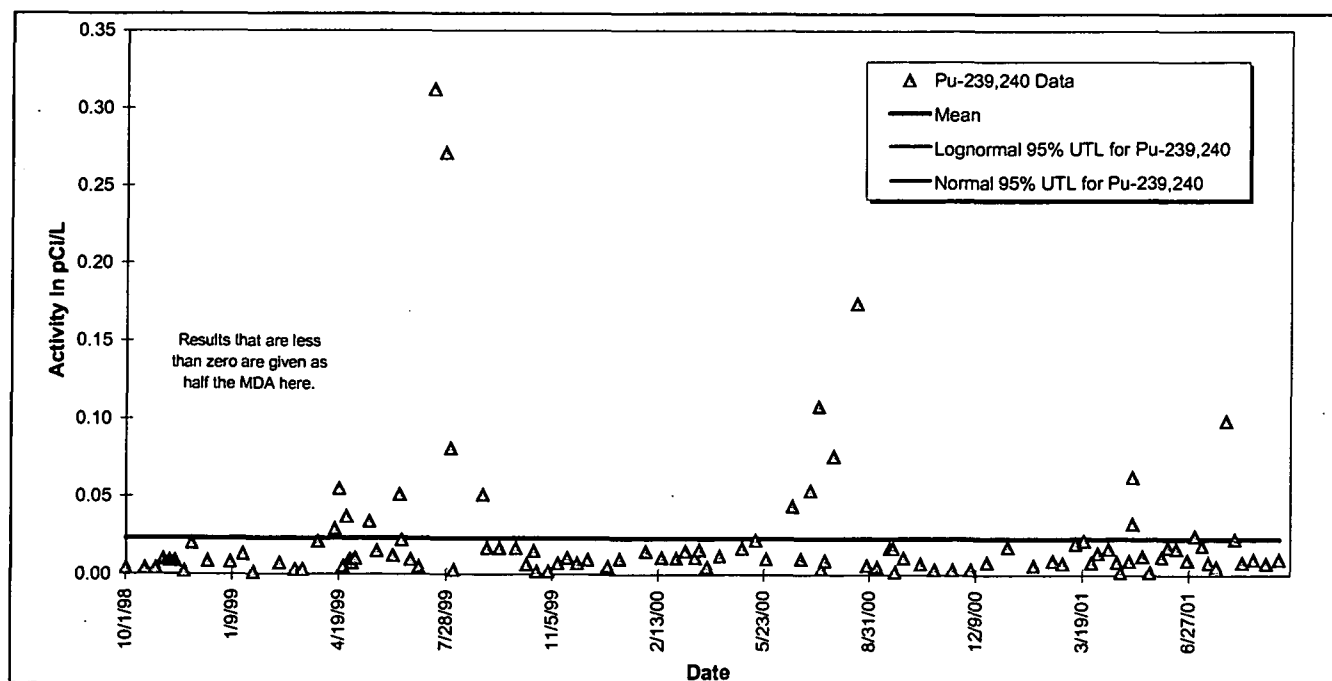


Figure 11-38. 95% UTL Plot for Pu-239,240 at SW093: WY99-01.

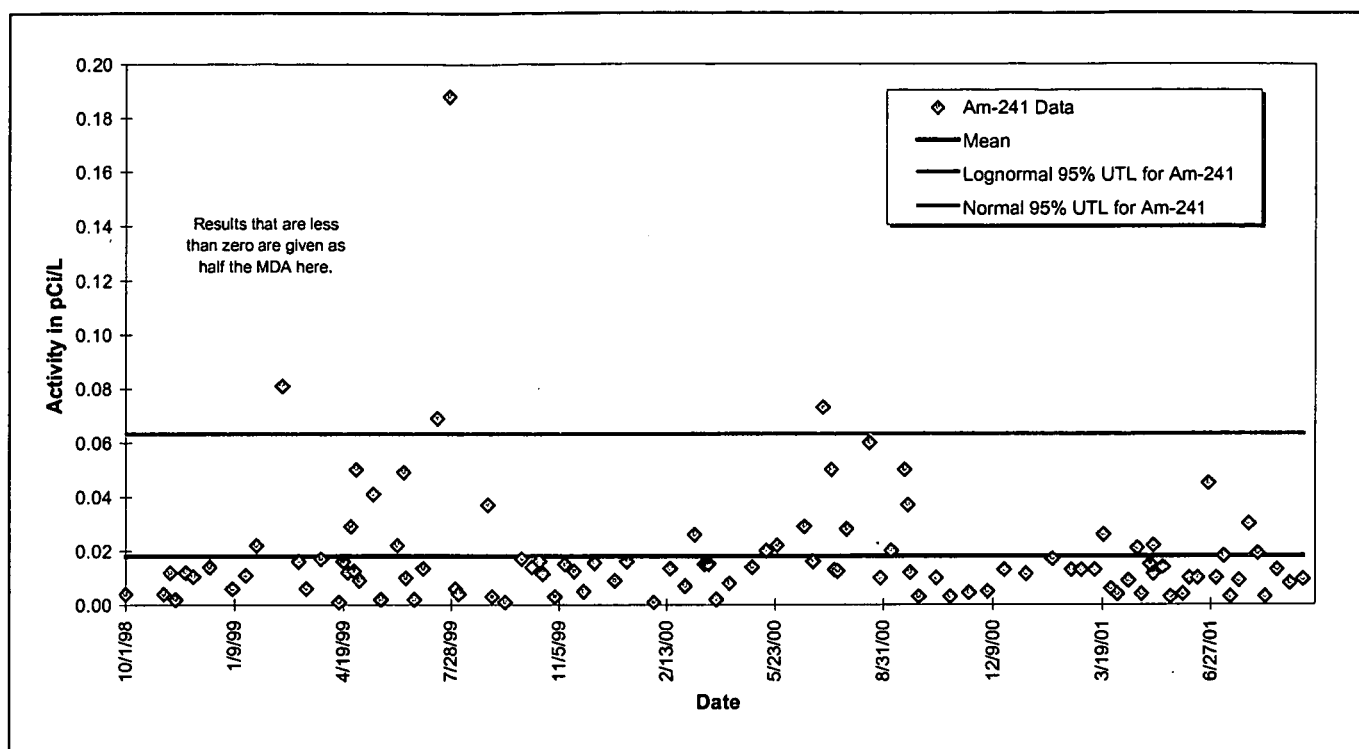


Figure 11-39. 95% UTL Plot for Am-241 at SW093: WY99-01.

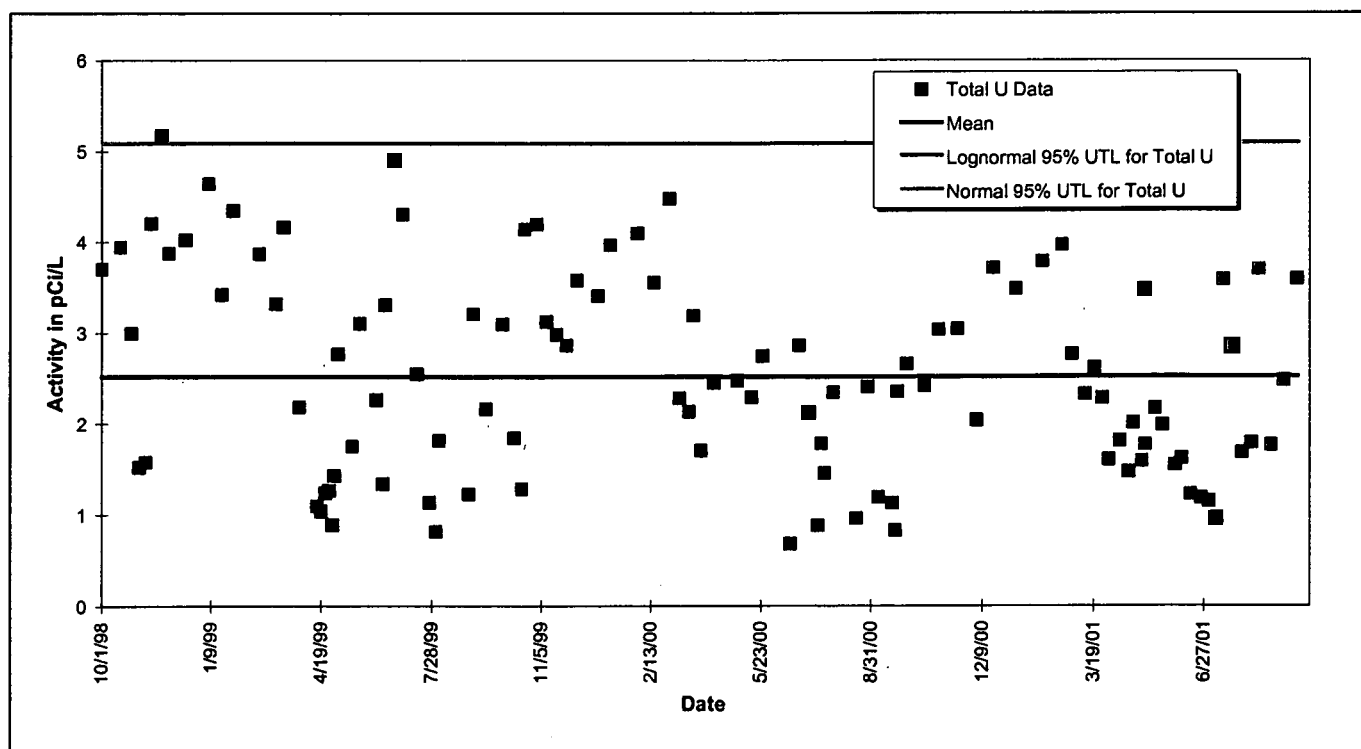


Figure 11-40. 95% UTL Plot for Total Uranium at SW093: WY99-01.

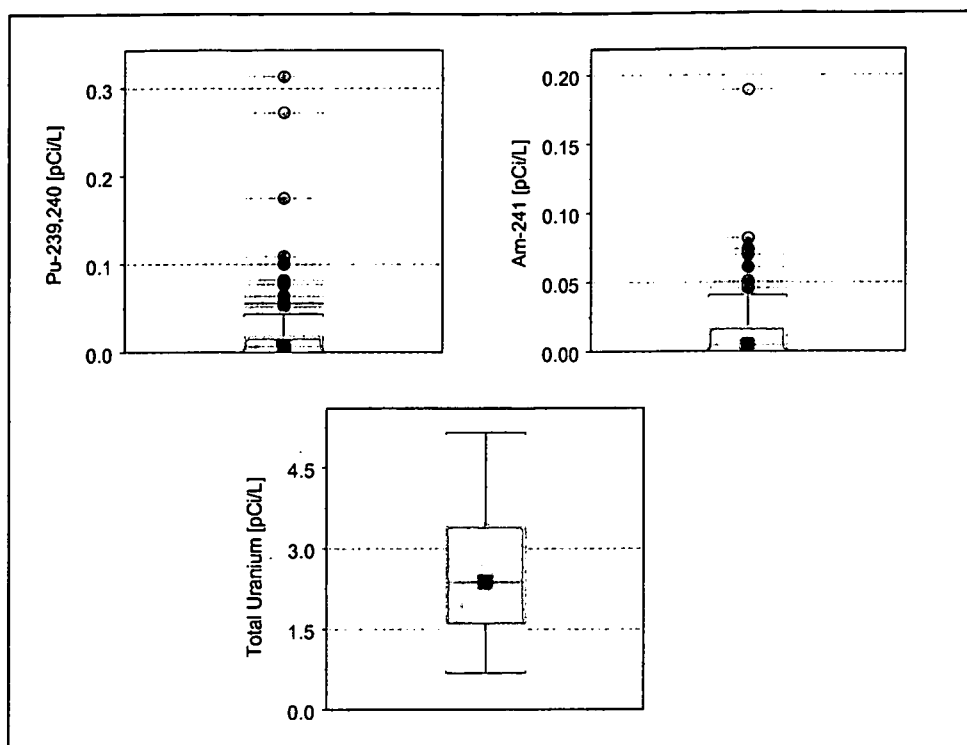


Figure 11-41. Radionuclide Box Plots for SW093: WY99-01.

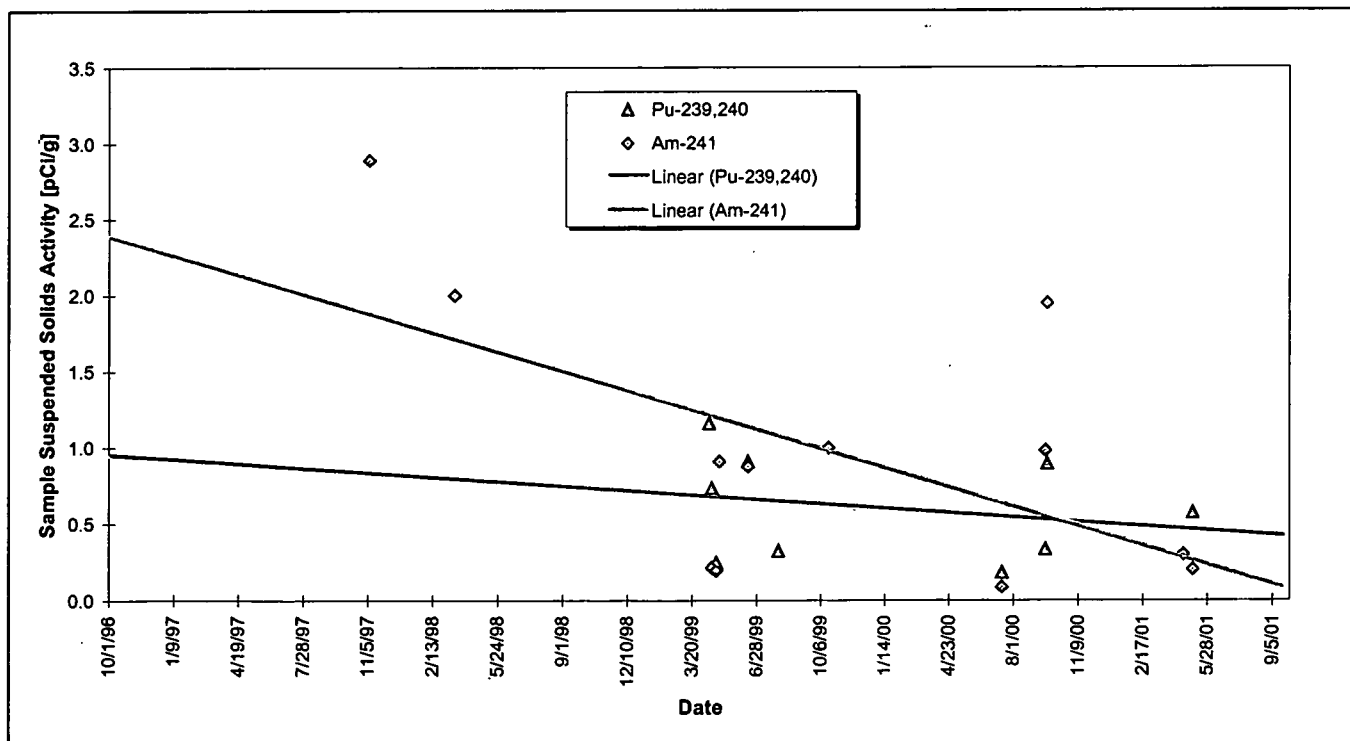


Figure 11-42. Temporal Variation of Suspended Solids Activity at SW093: WY97-01.

Mean daily water-quality parameter data are plotted in Figure 11-43 through Figure 11-50 along with the mean daily flow rate. Figure 11-43 and Figure 11-44 show the expected annual variation in water temperature.

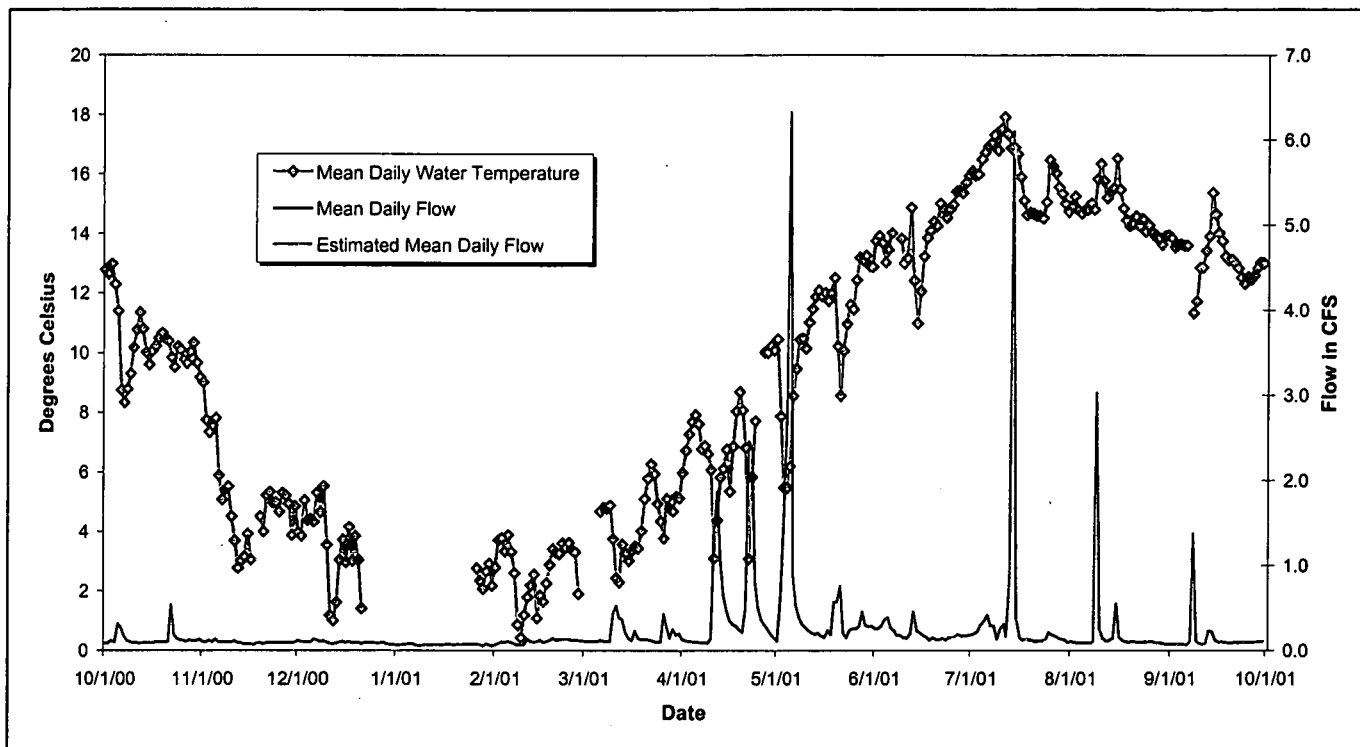


Figure 11-43. Mean Daily Water Temperature at SW093: Water Year 2001.

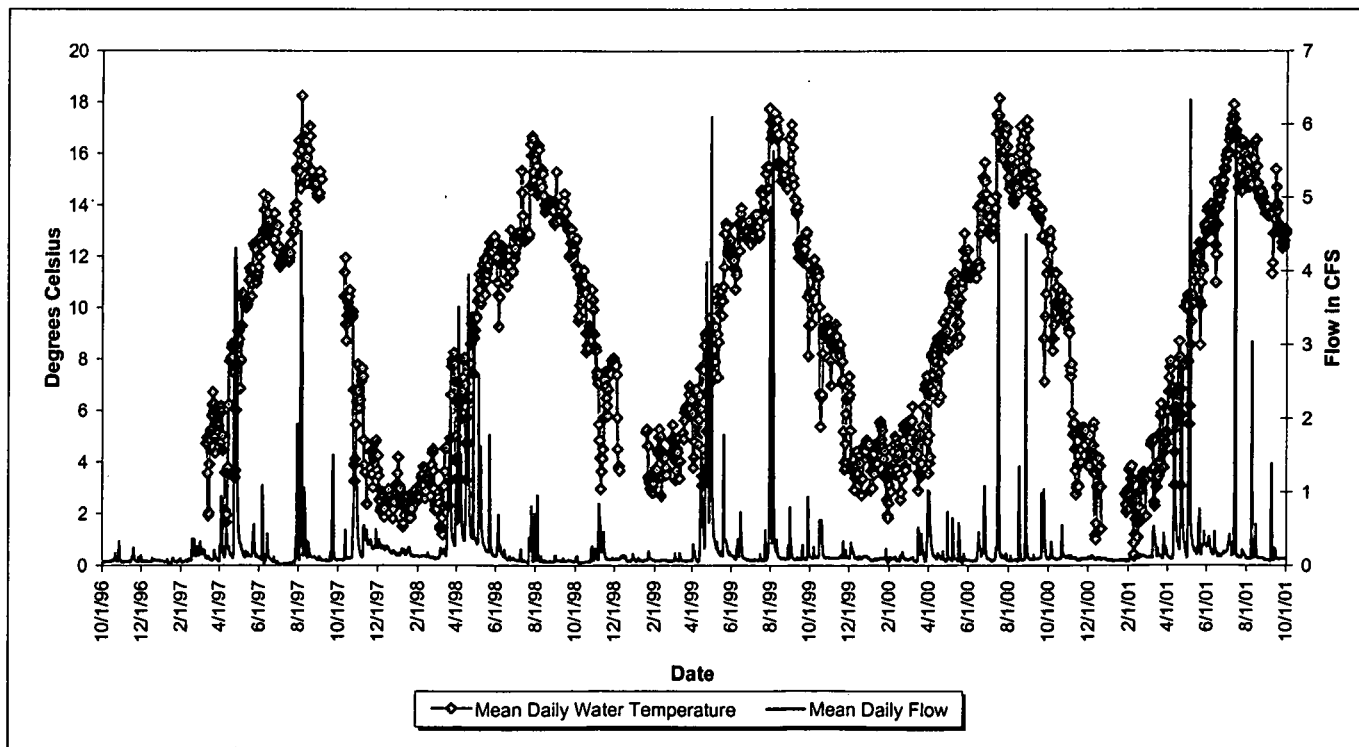


Figure 11-44. Mean Daily Water Temperature at SW093: Water Years 1997-2001.

Figure 11-45 and Figure 11-46 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations.

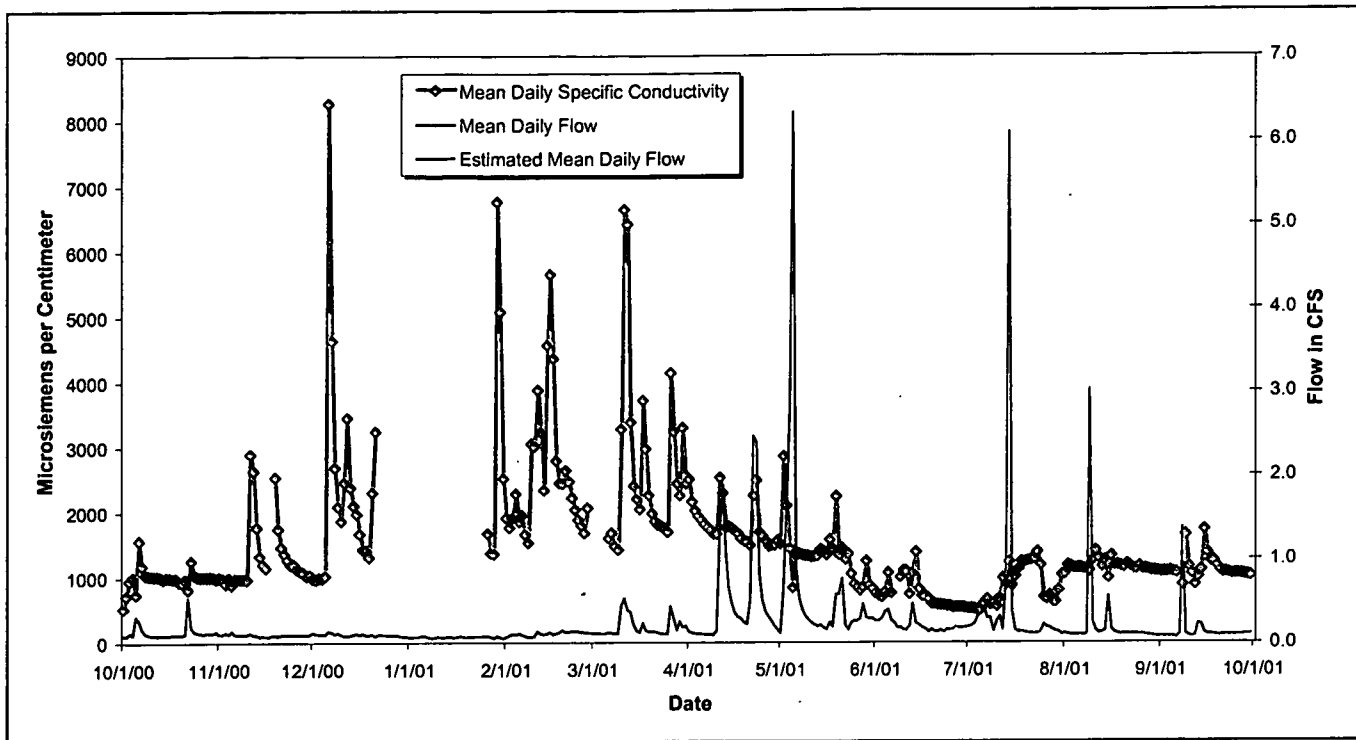


Figure 11-45. Mean Daily Specific Conductivity at SW093: Water Year 2001.

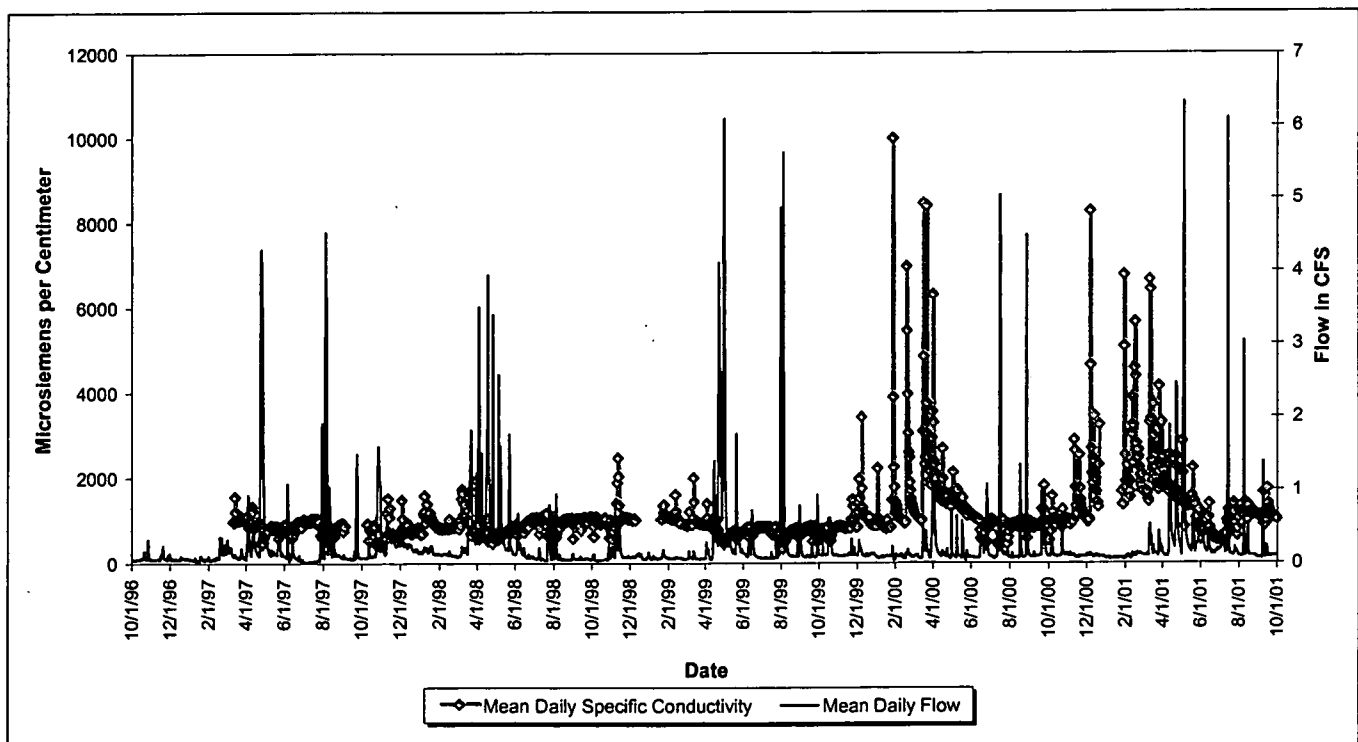


Figure 11-46. Mean Daily Specific Conductivity at SW093: Water Years 1997-2001.

Figure 11-47 and show the mean daily pH varying between 6.9 and 8.3.

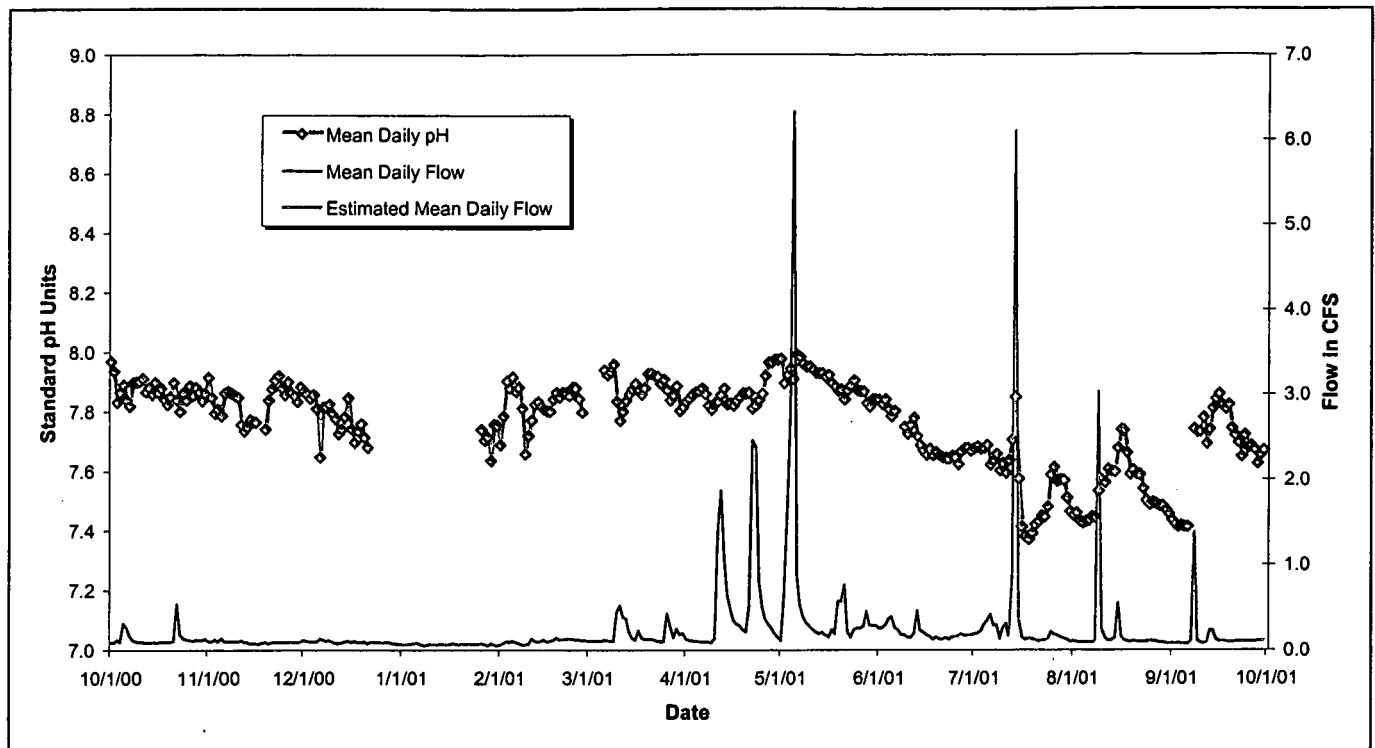


Figure 11-47. Mean Daily pH at SW093: Water Year 2001.

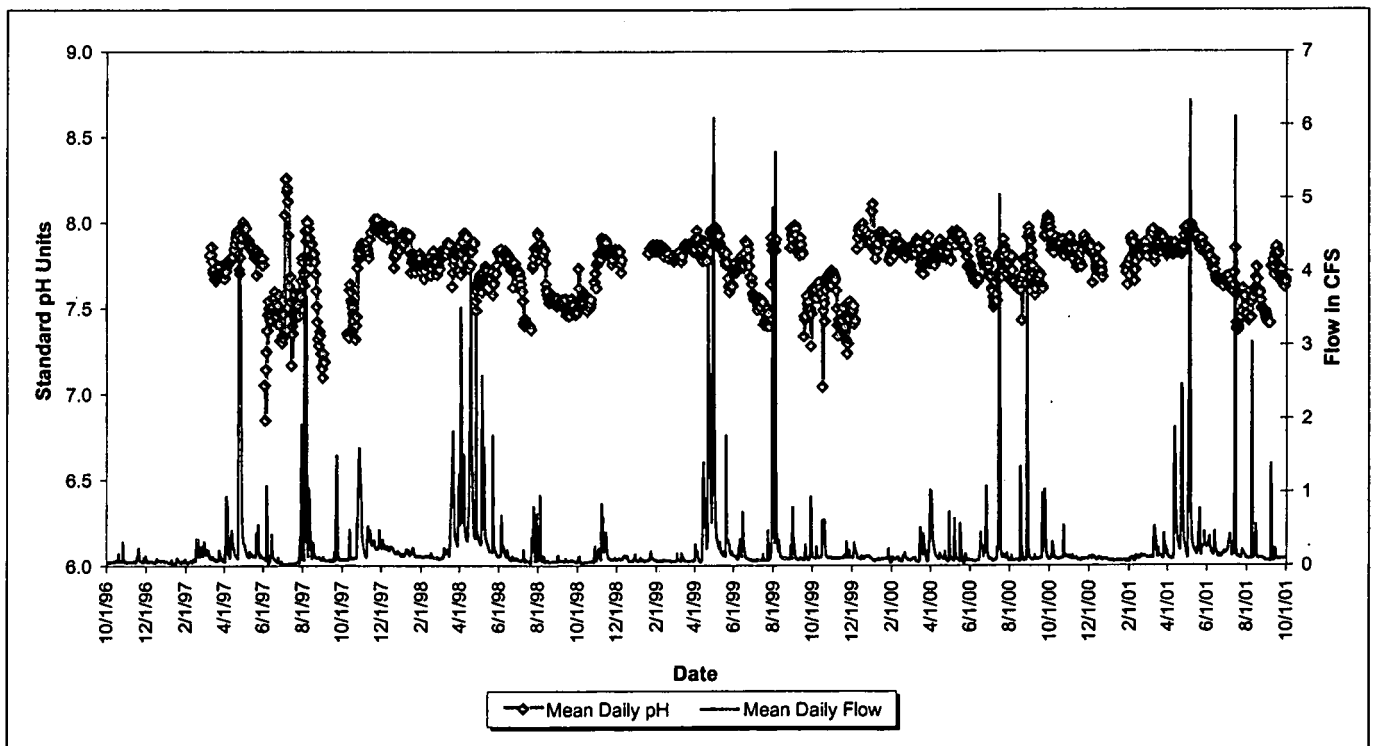


Figure 11-48. Mean Daily pH at SW093: Water Years 1997-2001.

Finally, Figure 11-49 and Figure 11-50 show elevated turbidity measurements tracking the flow rate in time and magnitude, as expected when higher flow rates transport more suspended solids.

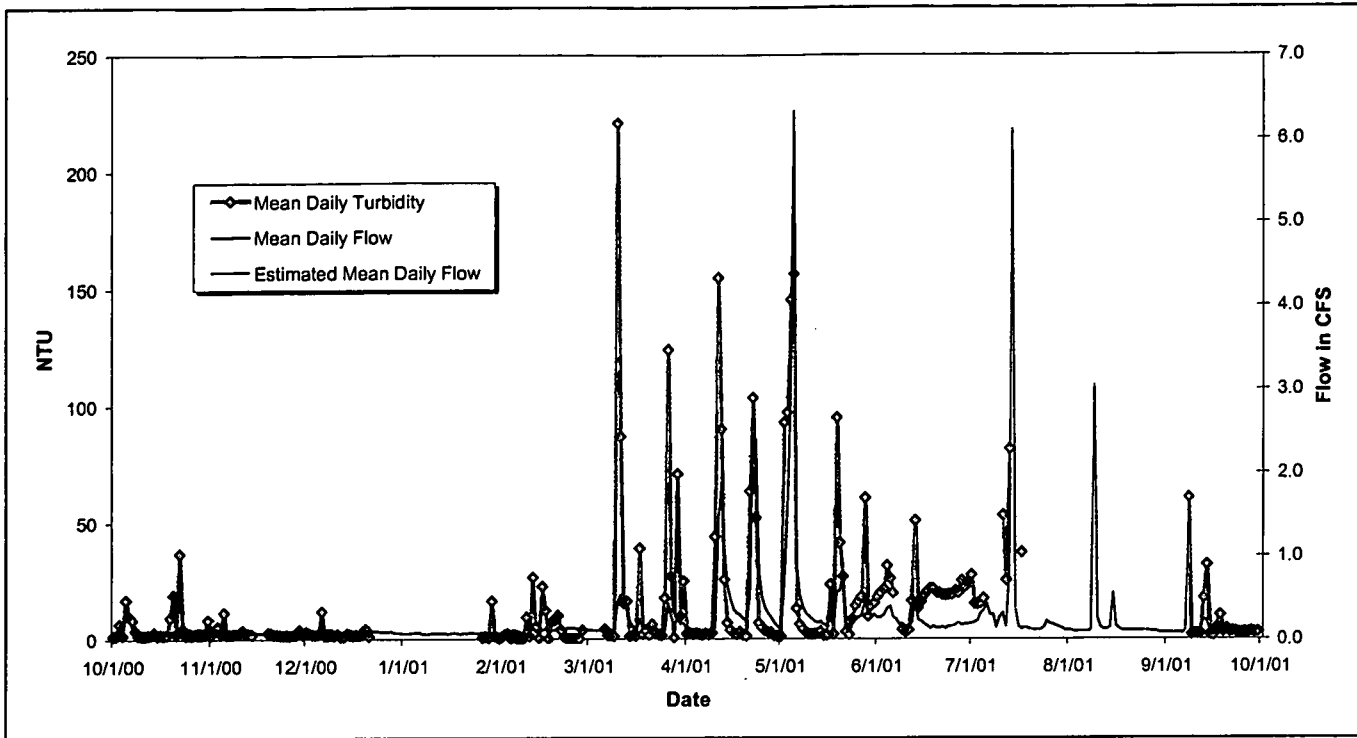


Figure 11-49. Mean Daily Turbidity at SW093: Water Year 2001.

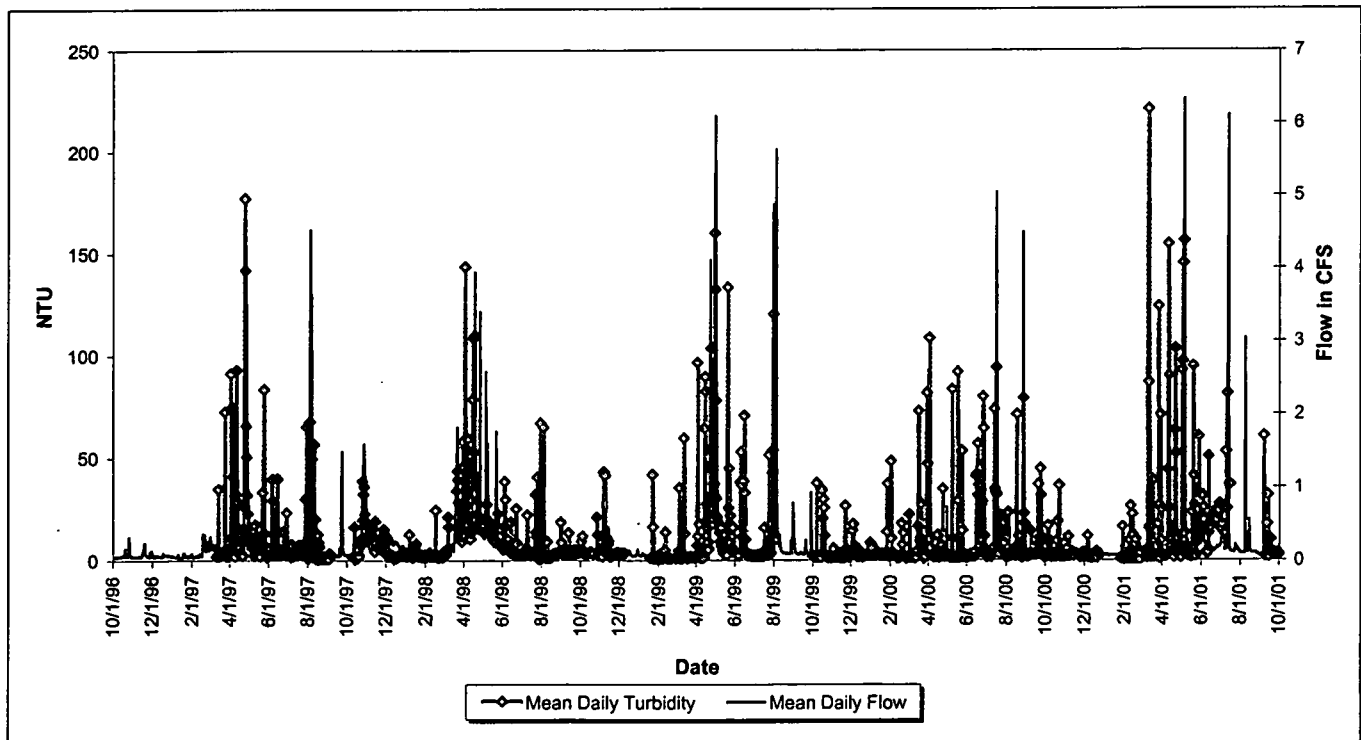


Figure 11-50. Mean Daily Turbidity at SW093: Water Years 1997-2001.

12.STREAM SEGMENT 5 POINT OF EVALUATION MONITORING

This monitoring objective deals with POE monitoring of Segment 5 for adherence with the RFCA Action Level Framework (ALF). Responses to reportable values relative to Action Levels at POEs are different than the responses associated with contaminated runoff before it reaches Segment 5 or after it enters Segment 4. IA monitoring upgradient of Segment 5 is designed to detect new contaminant sources within the IA. Downstream, Segment 4 is monitored at POCs to protect designated uses, the ecology, and the public health.

Data collected during RFCA monitoring have resulted in reportable levels for Pu and Am under the RFCA action level criteria at the designated POEs. Such reportable values have required source evaluation and the development of a mitigation plan, when appropriate. These reportable values have caused the Site to invoke the Source Location decision rule, perform special monitoring tailored to the specific source evaluation, and take action upstream of Segment 5 to protect Segment 5 from contaminant sources that caused such reportable values.

12.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The analytical decision inputs are those analytes specified as the Segment 5 AoIs per Table 12-1, as sampled at the POEs for Stream Segment 5. RFCA provides specific criteria for virtually every possible contaminant for the main stream channels of Segment 5. In developing the IMP, the DQO team identified a subset of those contaminants that are of sufficient interest to warrant monitoring under ALF.

Segment 5 includes North and South Walnut Creek between the IA and the terminal ponds, and the SID between the IA and Pond C-2. Monitoring will be performed for Stream Segment 5 only as represented by POEs SW093, SW027, and GS10 (see Figure 2-2).

Sampling for AoIs at POEs is performed by collecting continuous flow-paced composite samples. The recommended monitoring design detailed in the IMP is to take samples for WY01 as specified in Table 12-5 and Table 12-6. The intent is to take no less than one sample per quarter, and no more than four composite samples per month from each of the three monitoring locations.

Table 12-5 presents the approximate location-specific number of samples per month based on recommendations by statisticians at Pacific Northwest National Laboratory (PNNL) that worked with the DQO working group. There are both practical and statistical advantages to this sample allocation design. Averaging a larger number of samples is more expensive, but it protects the Site from regulatory action in response to a spurious, non-representative monitoring result.

There are secondary advantages to this monitoring plan. A larger number of samples allows for estimates of variability that can be used to refine the monitoring plan over time. The monitoring program specified in the IMP is a technically defensible approach that represents a compromise between a statistical design, a design based on professional judgement, and a design based on budgetary constraints. This design will generate data that are representative of actual contaminant levels and loads.

This design is consistent with the intent of the 30-day moving average specified in RFCA but allows some flexibility. Where there is no significant flow, there may be no samples completed within a 30-day period, and where the flows, loads, and variability are expected to be higher, sample numbers are also higher. Note that flow-paced monitoring will continue during dry periods, although flows may be so low that it takes more than 30 days to fill the composite sample container.

Indicator parameters are measured using real-time water-quality probes as discussed in Section 10.3.7 for the NSD monitoring objective. These data may be used in this decision rule for correlations and trending.

Table 12-1. RFCA Segment 5 Aols.

Radionuclides:	Total Pu-239,240	High level of public concern. Known carcinogen. Known past releases (within the past 8 years) have exceeded RFCA stream standards and action levels. This provides reasonable cause to expect future releases in excess of RFCA Action Levels.
	Total U-233,234, U-235, U-238	Known renal toxicity. Present on Site. Past exceedances provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
	Total Am-241	Known carcinogen. Present on Site. Known past exceedances provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
Metals:	Total Be	Known to cause berylliosis in susceptible individuals when exposed by inhalation. May also cause contact dermatitis. Present on Site. Will be monitored as an indicator of releases from process and waste storage areas.
	Total Cr	Physiological and dermal toxicity. High level of regulatory concern due, in part to the chromic acid incident of 1989. Low levels can cause significant ecological damage.
	Dissolved Ag	Highly toxic to fish at low levels if chronic. State of Colorado has temporarily removed its stream standard for silver, while under study. The study has been completed, and the standard will be reinstated at the next triennial review of South Platte stream standards, if not before. Used on Site only for photographic development. Routinely accepted by POTWs as municipal waste, but discharge is regulated. May be removed from this list later, if data do not support concern.
	Dissolved Cd	Highly toxic to fish at low levels if chronic. Known human carcinogen (prostate cancer) and depletes physiologic calcium. Used on Site in plating processes. Monitoring data for the Interceptor Trench System (ITS) and the proposed discharge of untreated ITS waters into Walnut Creek provide reasonable cause to expect future releases in excess of RFCA Action Levels.
	Hardness	Required to evaluate metals analyses, due to its effect on solubility of these metals.
Real Time Monitoring of Physical and Indicator Parameters: These parameters provide real-time alarms for a wide variety of regulated contaminants, and are also a required component of monitoring for Aols. They require no laboratory analyses, and are the Site's most cost effective defensive monitoring.	pH	Toxicity to humans and ecology. Regulatory concern due to chromic acid incident. Real-time monitoring is inexpensive and effective method of detecting acid spills such as (chromic acid or plutonium nitrate) or failure of treatment systems.
	Conductivity	Conductivity is an indicator of total dissolved solids, metals, anions, and pH. Real-time monitoring of conductivity is an inexpensive indicator of overall water quality.
	Turbidity	Turbidity is a general indicator of elevated contaminant levels, and may be correlated with Pu.
	Nitrate	Past releases near RFCA stream standards and action levels upstream of ponds provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels. ITS discharges are often high in nitrate, and may challenge RFCA action levels.
	Flow	Required to detect flow events, pace automated samplers, evaluate contaminant loads, and plan pond operations and discharges. Affects nearly every decision rule, and is the most commonly discussed attribute of Site surface waters.

Notes: ITS = Interceptor Trench System; POTW = Publicly owned treatment works; VOA = Volatile organic analysis

12.2 WY01 MONITORING SCOPE

Table 12-2. POE Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS10	S. Walnut Cr. upstream from the B-1 Bypass	9" Parshall Flume	Yes
SW027	South Interceptor Ditch just upstream of Pond C-2	Dual Parallel 120° V-Notch Weirs	Yes
SW093	N. Walnut Cr. 1300' upstream from the A-1 Bypass	36" Suppressed Rectangular Sharp-Crested Weir	Yes
995POE	WWTP effluent stream at UV disinfection building	60° V-Notch Weir	Yes

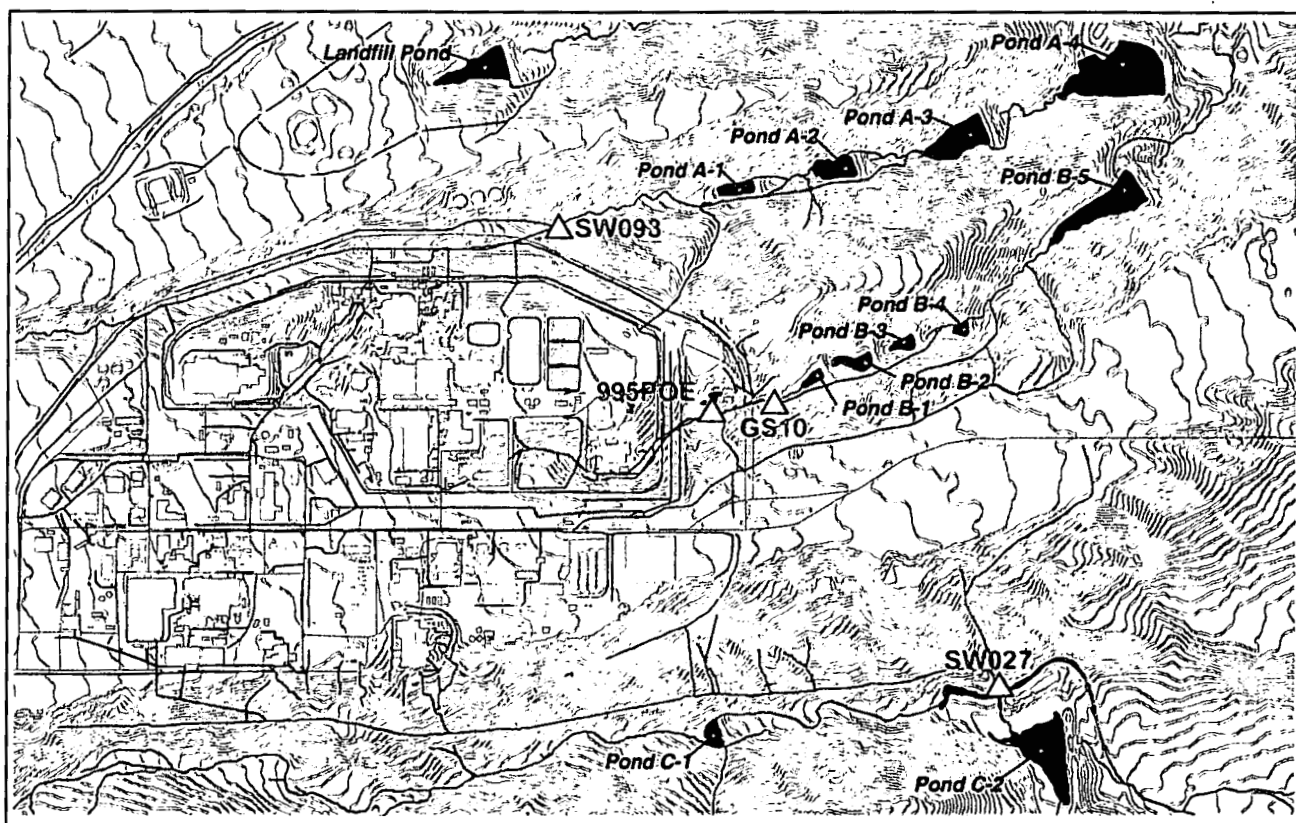


Figure 12-1. Water Year 2001 Point of Evaluation Monitoring Locations.

Table 12-3. POE Field Data Collection: Parameters and Frequency.

ID Code	Parameter	
	Discharge	Real-Time pH, Conductivity, Turbidity, Nitrate
GS10	15-min continuous	15-min continuous
SW027	15-min continuous	15-min continuous
SW093	15-min continuous	15-min continuous
995POE	NA; daily discharge data provided by B995 building personnel used in analytical data evaluations	NA

Note: All locations collect 5- and 15-minute flow data.

Table 12-4. POE Sample Collection Protocols.

ID Code	Frequency ^a : WY01 Actual (Target)	Type ^b
GS10	31 (34 per year)	Continuous flow-paced composites
SW027	8 (16 per year)	Continuous flow-paced composites
SW093	36 (36 per year)	Continuous flow-paced composites
995POE	34 (36 per year ^c)	Continuous flow-paced composites

Notes: ^a Sample frequency distribution during the year for SW093, GS10, and SW027 (POEs) is given in Table 12-5.
^b Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.
^c Groups of three composite samples will be combined for analysis, resulting in 12 analytical results annually.

Table 12-5. POE Target Sample Distribution.

Month	SW093: WY01 Actual (Target)	GS10: WY01 Actual (Target)	SW027: WY01 Actual (Target)	995POE: WY01 Actual (Target)	Totals: WY01 Actual (Target)
Oct 00	3 (2)	4 (3)	0 (0)	1 (3)	8 (9)
Nov 00	1 (3)	1 (2)	0 (0)	3 (3)	5 (10)
Dec 00	2 (2)	1 (1)	0 (1)	3 (3)	6 (7)
Jan 01	1 (2)	1 (1)	0 (0)	2 (2)	4 (5)
Feb 01	3 (2)	3 (2)	0 (0)	3 (2)	9 (6)
Mar 01	3 (4)	2 (3)	1 (1)	2 (3)	8 (12)
Apr 01	4 (4)	4 (4)	3 (4)	4 (4)	15 (16)
May 01	5 (4)	4 (4)	3 (4)	4 (4)	16 (16)
Jun 01	4 (4)	3 (4)	0 (3)	3 (3)	10 (15)
Jul 01	4 (3)	3 (3)	0 (1)	3 (3)	10 (8)
Aug 01	4 (4)	3 (4)	1 (1)	3 (3)	11 (8)
Sep 01	2 (2)	2 (3)	0 (1)	3 (3)	7 (10)
Totals	36 (36)	31 (34)	8 (16)	34 (36^a)	109 (122)

Notes: ^a Composites collected at 995POE will be analyzed in groups of 3, for 12 analyses per year.

Table 12-6. POE Analytical Targets (Analyses per Year).

ID Code	Dissolved Ag, Total Be, Dissolved Cd, Total Cr	Hardness	Tritium	Pu, U, Am
GS10	31 (34)	31 (34)	NA	31 (34)
SW027	8 (16)	8 (16)	NA	8 (16)
SW093	36 (36)	36 (36)	NA	36 (36)
995POE	NA	NA	12 (12)	12 (12)

12.3 DATA EVALUATION

Sampling for AoIs at POEs is performed by collecting continuous flow-paced composite samples. Indicator parameters are measured using real-time water-quality probes. The AoIs are evaluated using 30-day moving averages, as specified in RFCA and implemented by the ALF or DQO working groups involving consensus of all parties to RFCA. Pu, Am, U, Be, Cr, dissolved Ag, and dissolved Cd are evaluated using volume-weighted 30-day moving averages at POEs²⁸. Indicator parameters are evaluated qualitatively to assess chronic trends and annual variability.

²⁸ The 30-day average for a particular day is calculated as a volume-weighted average of a 'window' of time containing the previous 30-days which had flow. Each day has its own discharge volume (measured at the location with a flow meter) and activity (analytical result from the sample in place at the end of that day). Therefore, there are 365 30-day moving average

The parties to RFCA agree that continuous monitoring probes will be used as indicators that may suggest a need for additional monitoring, mitigating action, or management decision. The parties agree that compliance and enforcement issues will be resolved based on standard analytical procedures required by the applicable agreement or regulations, e.g., RFCA, or CERCLA. The parties agree that continuous monitoring field probes should NOT be used to determine compliance or serve as a basis for enforcement action, unless the applicable regulation specifies such a probe as the enforceable analytical method for a particular measurement.

Generally, analytical data evaluation is performed as preliminary data become available. If an initial qualitative screening indicates that an analytical result is higher than the action level for a particular AoI, then the 30-day average is calculated immediately upon receipt of the preliminary result. The desired evaluation frequency is semi-monthly, within one week of the 15th and last day of any given month.

IF The appropriate summary statistic for any AoI in the main stream channels of Stream Segment 5, as monitored at the designated POEs, exceeds the appropriate RFCA action level²⁹ (Table 12-8)

THEN The Site must notify EPA and CDPHE, evaluate for source location, and implement mitigating action³⁰ if appropriate³¹.

Table 12-7. POE Monitoring Analytical Data Evaluation.

ID Code	Evaluation Type ^a
GS10	30-Day Volume-Weighted Moving Averages; Loading Analysis
SW027	30-Day Volume-Weighted Moving Averages; Loading Analysis
SW093	30-Day Volume-Weighted Moving Averages; Loading Analysis
995POE	30-Day Volume-Weighted Moving Averages; Loading Analysis

Notes: ^a Details on the evaluation of analytical results are given in Appendix B.1: Data Evaluation Methods. Loading analysis for POEs is given in Section 5.

Table 12-8. POE Monitoring RFCA Action Levels.

Analyte	Action Level
Am-241	0.15 pCi/L
Pu-239,240	0.15 pCi/L
Total Uranium	10 pCi/L (GS10 and SW093); 11 pCi/L (SW027)
Total Be	4 µg/L
Dissolved Cd	1.5 µg/L
Total Cr	50 µg/L
Dissolved Ag	0.6 µg/L

Note: The above action levels only apply to 30-day average values. Comparisons to other values are provided for reference only.

values for a location that flows all year (366 values in a leap year). At locations which monitor pond discharges or have intermittent flows, 30-day averages are reported as averages of the previous 30 days of greater than zero flow. For days where no activity is available, either due to a failed lab analysis or non-sufficient quantity (NSQ) for analysis, no 30-day average is reported. The calculation of 30-day averages is discussed in detail in Appendix B.1: Data Evaluation Methods.

²⁹ Appropriate action levels and standards for volume-weighted 30-day moving averages are specified for individual contaminants in RFCA.

³⁰ Mitigating action may include, but not be limited to, the following examples: 1) Immediate action to halt a discharge or contain a spill; or 2) Use of the Source Location decision rule to seek out and mitigate upstream contaminant sources.

³¹ EPA determines the consequences for an exceedance of any action level (not just those for AoIs) at any location within the segment (not just at the consensus monitoring points). This decision rule presents the consensus decision rule that drives our monitoring activities. It is an implementation, rather than a reiteration, of RFCA.

The following sections include summary tables and plots showing the 30-day volume-weighted averages, periodic volume-weighted averages, and 365 calendar-day volume-weighted averages for the POE analytes. Prior to 1/1/00, the action levels for both dissolved Cd and Ag were calculated to take into account the toxicity of these metals in relation to hardness. The action levels were calculated for each day using the corresponding 30-day volume-weighted hardness values. Therefore, the action levels vary with varying hardness. Starting on 1/1/00, in consultation with the Regulators and Stakeholders, the action levels used for these metals assumes a fixed hardness of 143 mg/L, which is consistent with State water-quality standard methodology.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

The methods used for the evaluations are given in Appendix B.1: Data Evaluation Methods.

The loading analysis for GS10, SW027, SW093, and 995POE is presented in Section 5.

Real-time water quality data are not presented in this section. Plots of mean daily water temperature, specific conductivity, pH, and turbidity values are given in Section 11.3. More detailed data for all parameters are presented in Appendix B.5.2. The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

12.3.1 Location GS10

Monitoring location GS10 is located on S. Walnut Cr. at the perimeter of the IA just upstream of the B-Series ponds. Figure 3-29 shows the drainage area for GS10. The 100, 300, 400, 500, 600, 700, 800, and 900 areas all contribute flow to GS10.

Table 12-9 shows that most of the annual average Pu and Am activities were greater than 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-01) are greater than 0.15 pCi/L. The total uranium average activities are well below 10 pCi/L.

Figure 12-2 shows multiple occurrences of reportable 30-day averages. In response, the Site was required to perform multiple source evaluations to address these reportable values. A summary of the extensive investigations is given in Section 6.3.

Figure 12-3 shows that the 30-day averages for uranium were below reporting levels for the entire period.

Figure 12-6 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, but many values would still be reportable using the current 0.15 pCi/L Action Level.

Table 12-9. Annual Volume-Weighted Average Radionuclide Activities at GS10 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,240	Total Uranium
1997	0.302	0.295	2.849
1998	0.105	0.152	2.985
1999	0.276	0.140	2.483
2000	0.397	0.185	2.191
2001	0.072	0.078	2.841
Total (WY97-01)	0.227	0.169	2.680

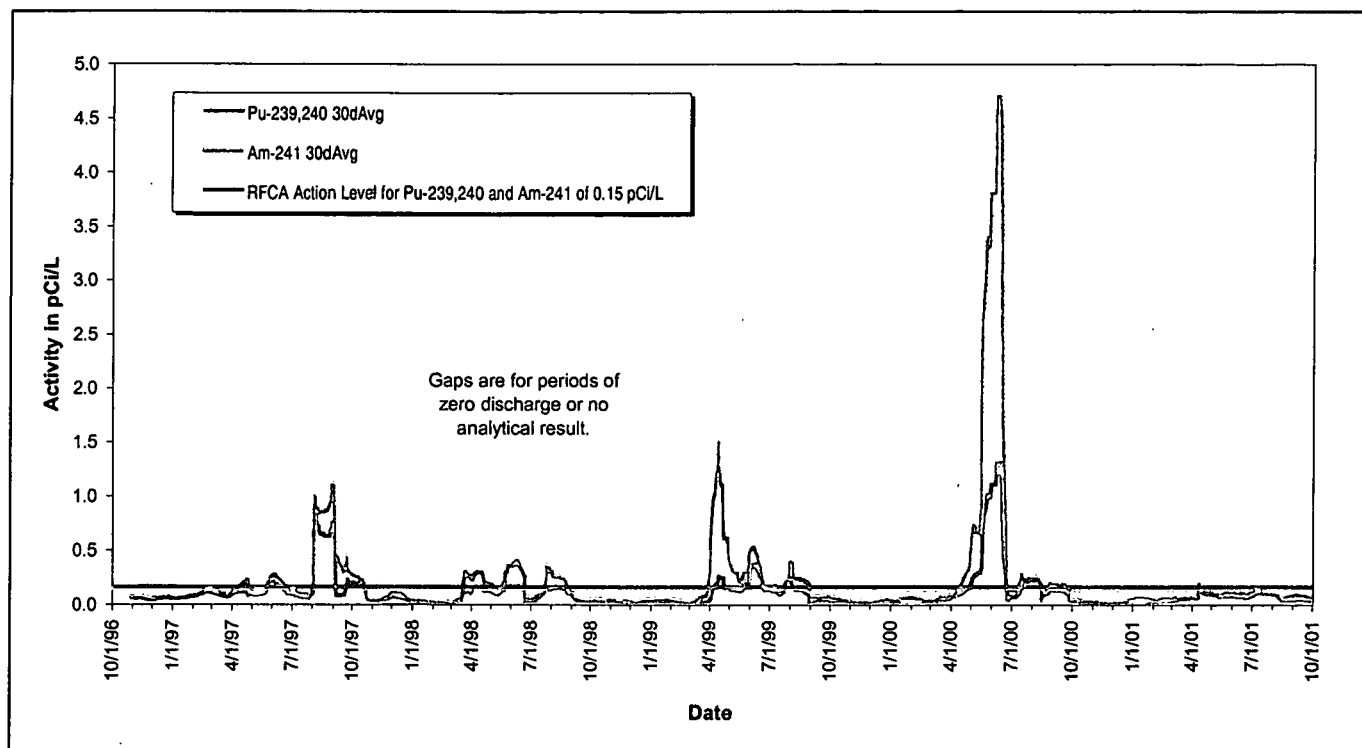


Figure 12-2. Volume-Weighted 30-Day Average Pu and Am Activities at GS10: WY97-01.

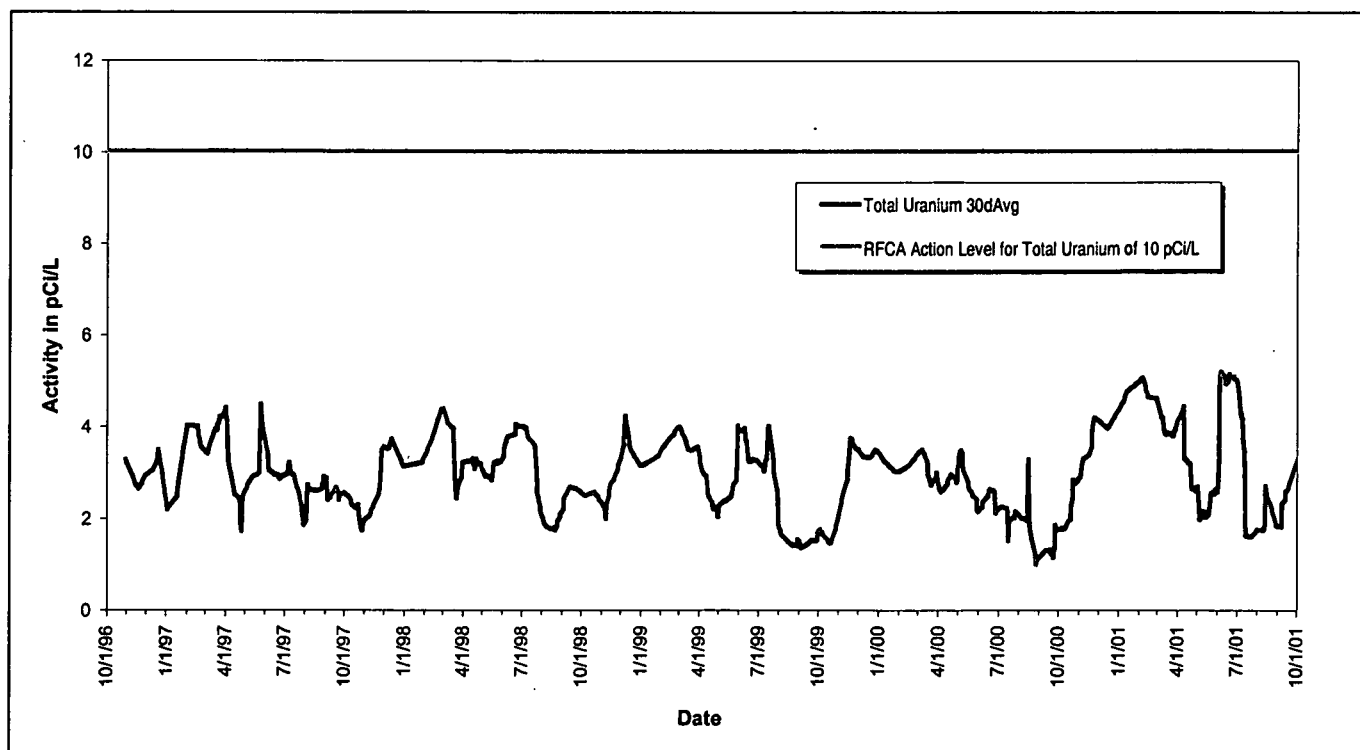


Figure 12-3. Volume-Weighted 30-Day Average Total Uranium Activities at GS10: WY97-01.

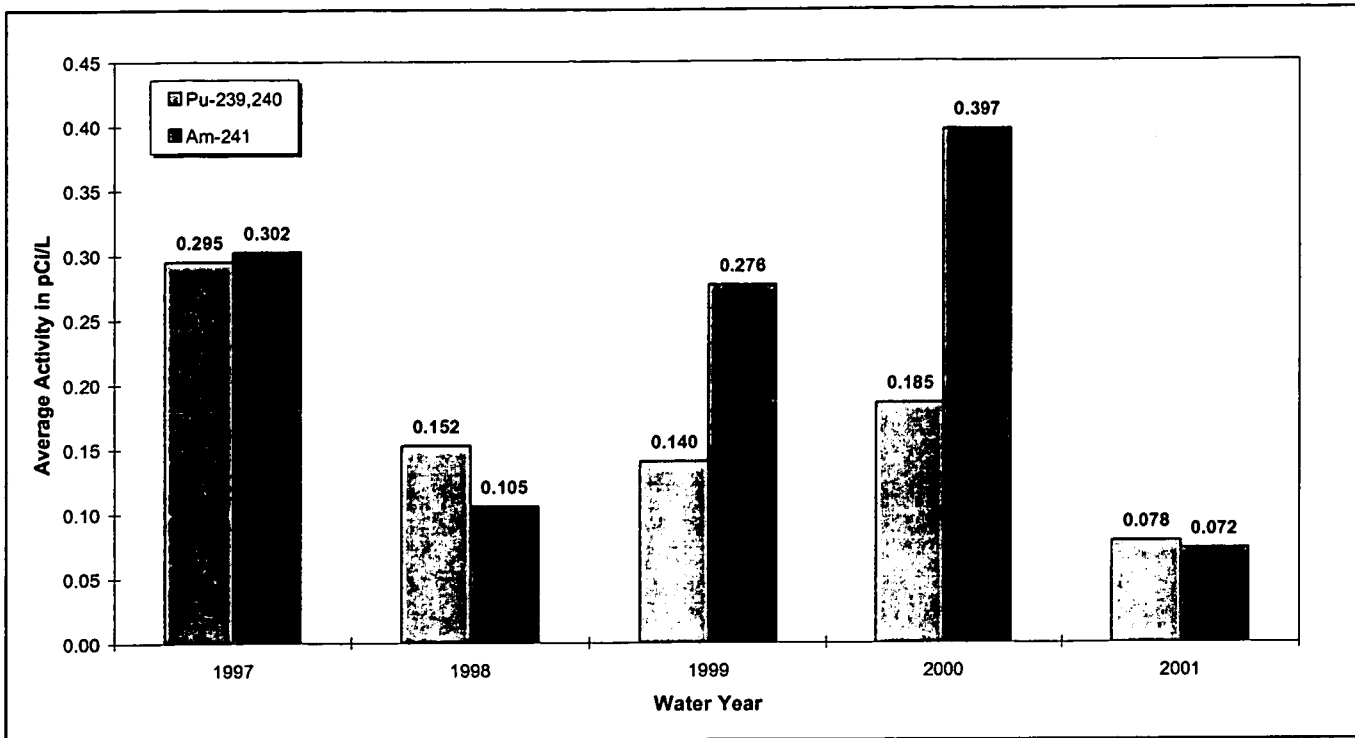


Figure 12-4. Annual Volume-Weighted Average Pu and Am Activities at GS10: WY97-01.

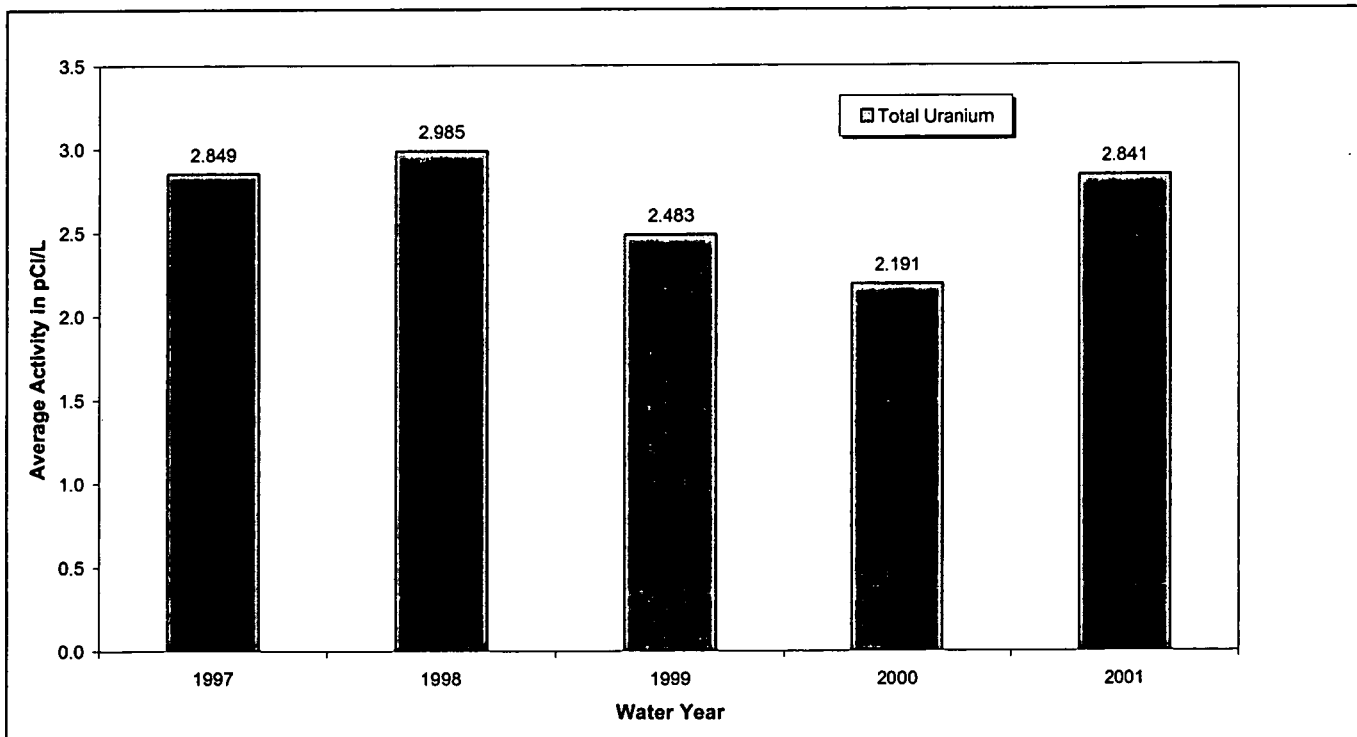
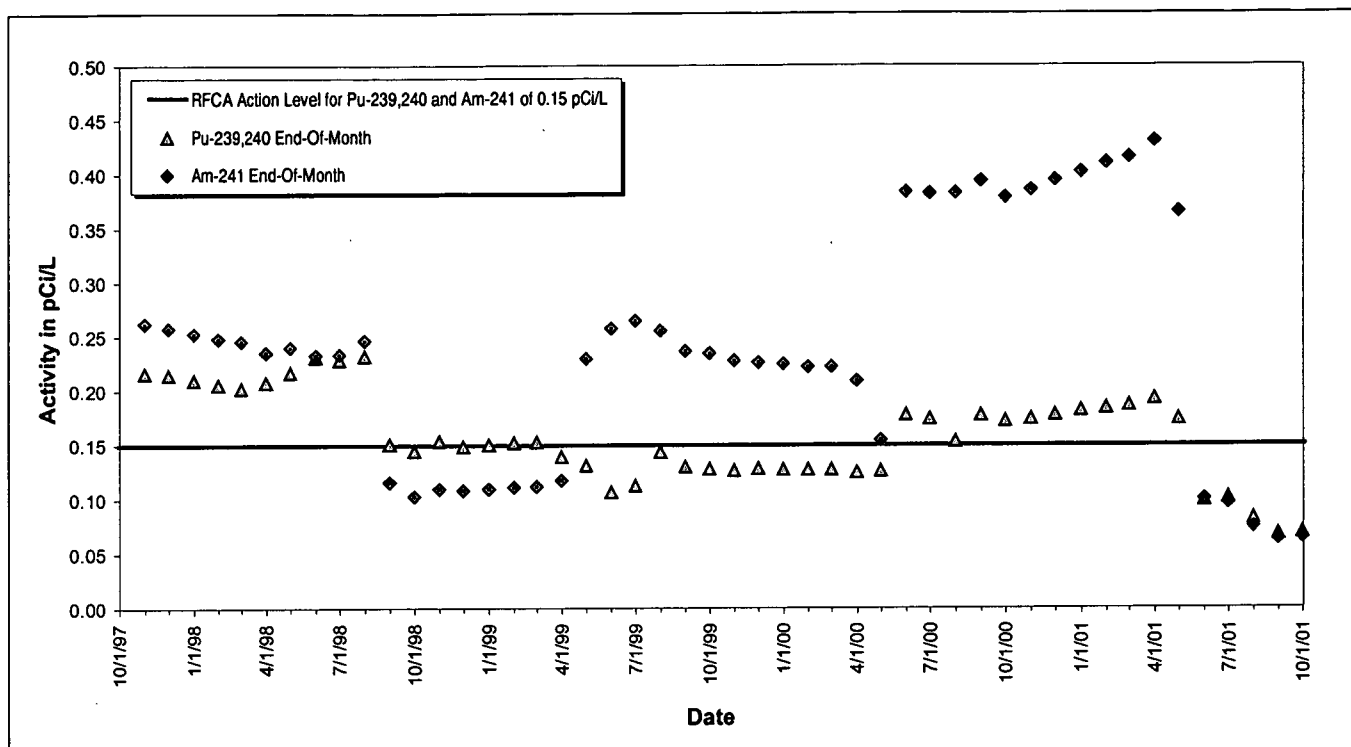


Figure 12-5. Annual Volume-Weighted Average Total Uranium Activities at GS10: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Action Level shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 12-6. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS10: WY97-01.

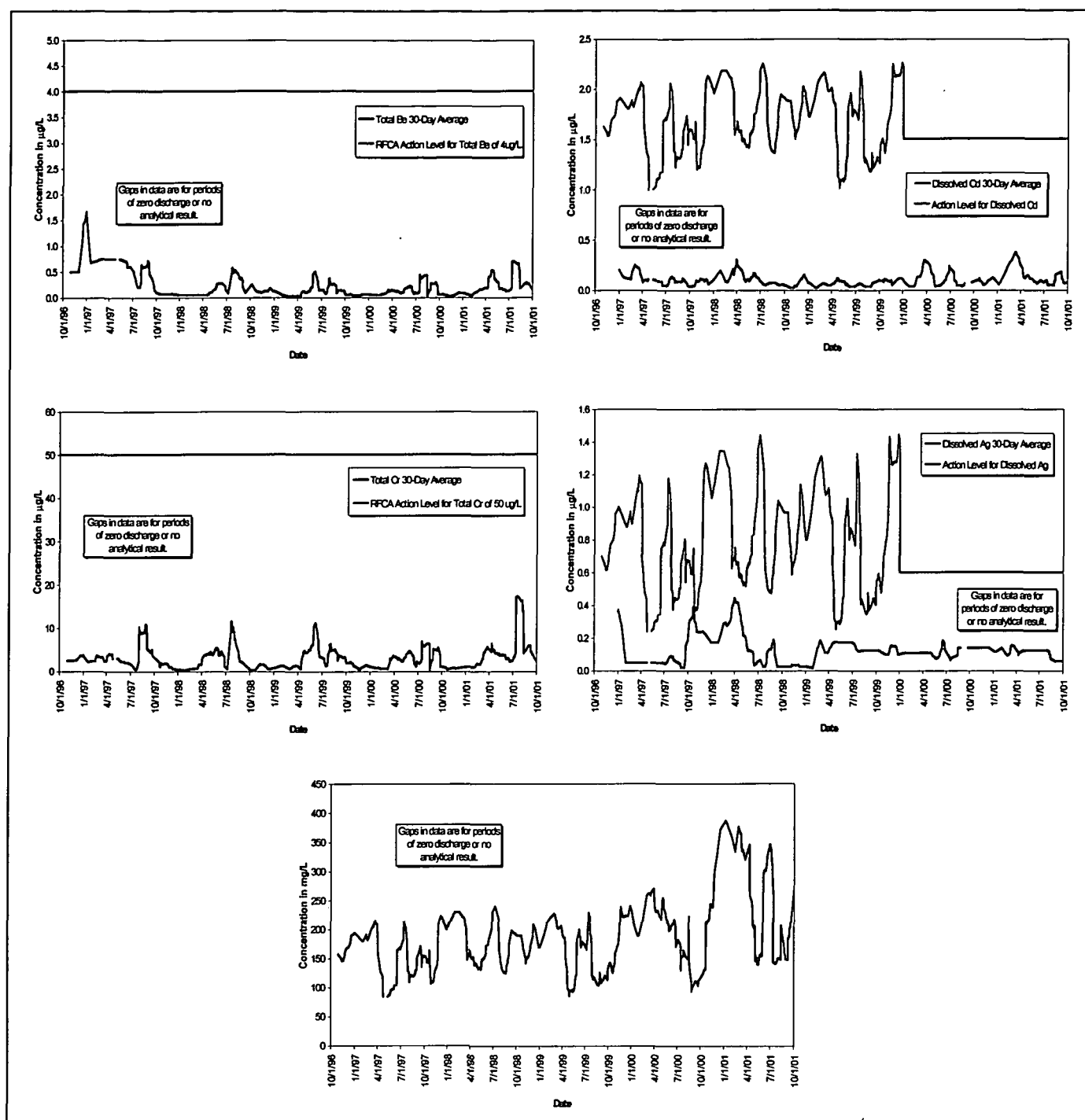
Table 12-10 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (WY97-01) were less than the action levels.

Figure 12-7 shows that none of the 30-day averages were reportable.

Table 12-10. Annual Volume-Weighted Average Hardness and Metals Concentrations at GS10 in WY97-01.

Water Year	Volume-Weighted Average Concentration (µg/L)				
	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag
1997	137	0.64	0.09	4.62	0.08
1998	159	0.14	0.13	3.19	0.24
1999	134	0.17	0.07	4.09	0.13
2000	173	0.20	0.11	3.53	0.11
2001	213	0.32	0.11	5.82	0.12
Total (WY97-01)	162	0.28	0.10	4.20	0.14

Note: Hardness units mg/L.



Note: Prior to 1/1/00, action levels for dissolved Cd and Ag were calculated using the analyte specific toxicity equation incorporating the 30-day volume-weighted hardness values.

Figure 12-7. Volume-Weighted 30-Day Average Metals and Hardness Concentrations at GS10: WY97-01.

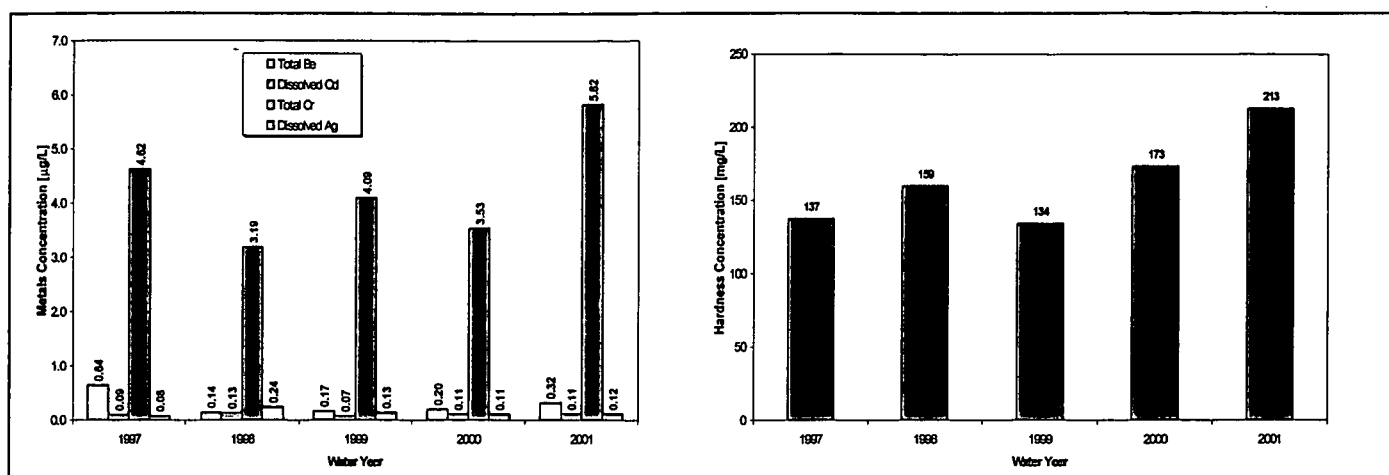


Figure 12-8. Annual Volume-Weighted Average Metals and Hardness Concentrations at GS10: WY97-01.

12.3.2 Location SW027

Monitoring location SW027 is located at the end of the SID at the inlet to Pond C-2. Figure 3-104 shows the drainage area for SW027. The 100, 400, 600, 800, and 900 areas all contribute flow to SW027.

Table 12-11 shows that most of the annual average Pu and Am activities were less than 0.15 pCi/L. Additionally, neither of the long-term Pu and Am averages (WY97-01) is greater than 0.15 pCi/L. The total uranium average activities are well below 11 pCi/L.

Figure 12-9 shows two periods of reportable 30-day averages for Pu. In response, the Site was required to perform source evaluations to address these reportable values. A summary of the extensive investigations is given in Section 6 of the Automated Surface-Water Monitoring Report: Water Years 1997-2000.

Figure 12-10 shows that the 30-day average for uranium was below reporting levels for the entire period.

Figure 12-13 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, but several values would still be reportable using the current 0.15 pCi/L Action Level.

Table 12-11. Annual Volume-Weighted Average Radionuclide Activities at SW027 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,240	Total Uranium
1997	0.007	0.037	1.432
1998	0.021	0.140	3.208
1999	0.018	0.067	1.870
2000	0.059	0.327	1.212
2001	0.006	0.025	1.333
Total (WY97-01)	0.018	0.100	2.023

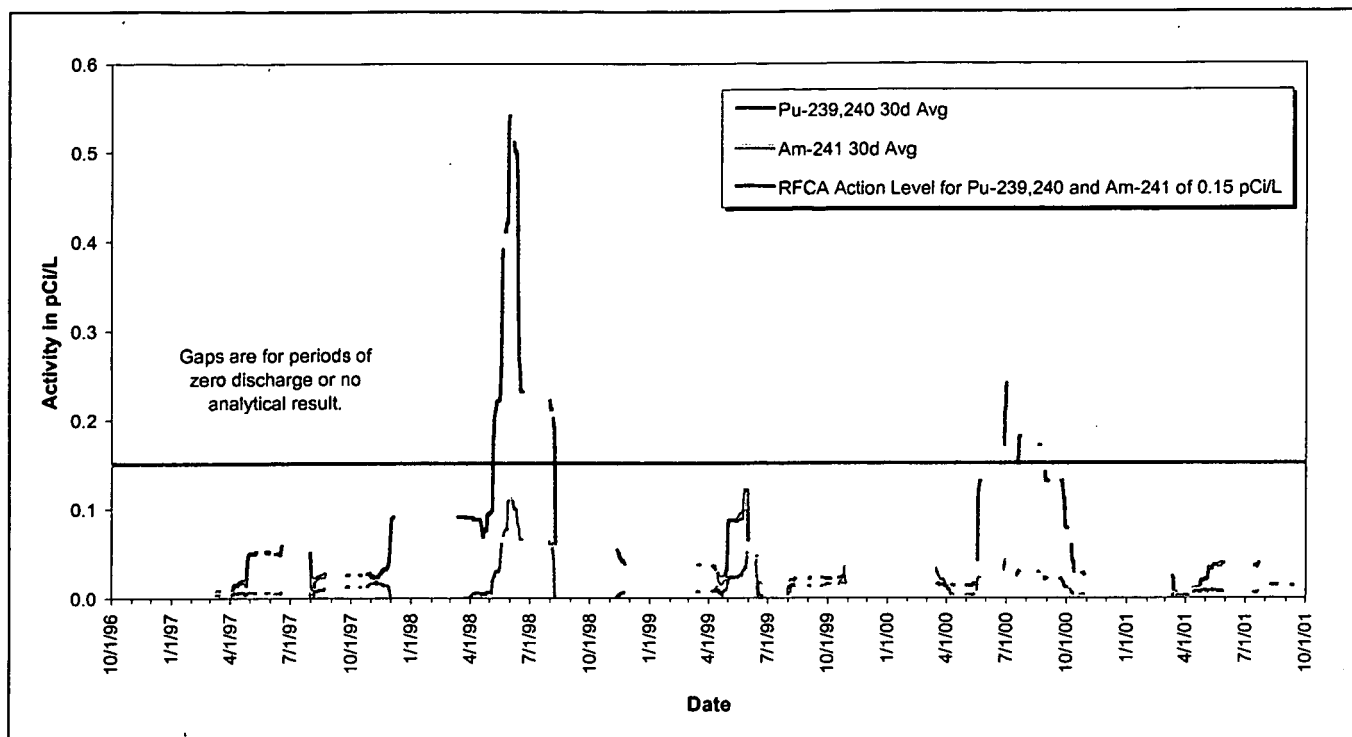


Figure 12-9. Volume-Weighted 30-Day Average Pu and Am Activities at SW027: WY97-01.

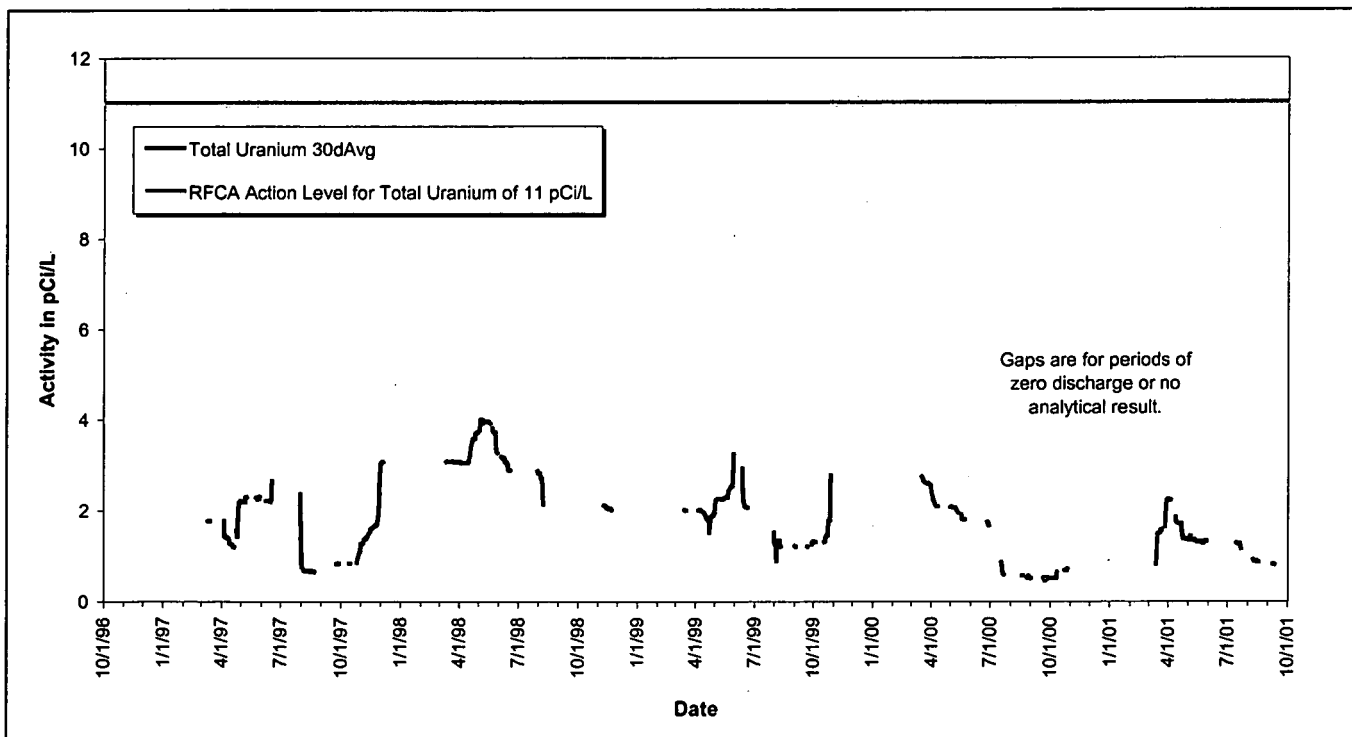


Figure 12-10. Volume-Weighted 30-Day Average Total Uranium Activities at SW027: WY97-01.

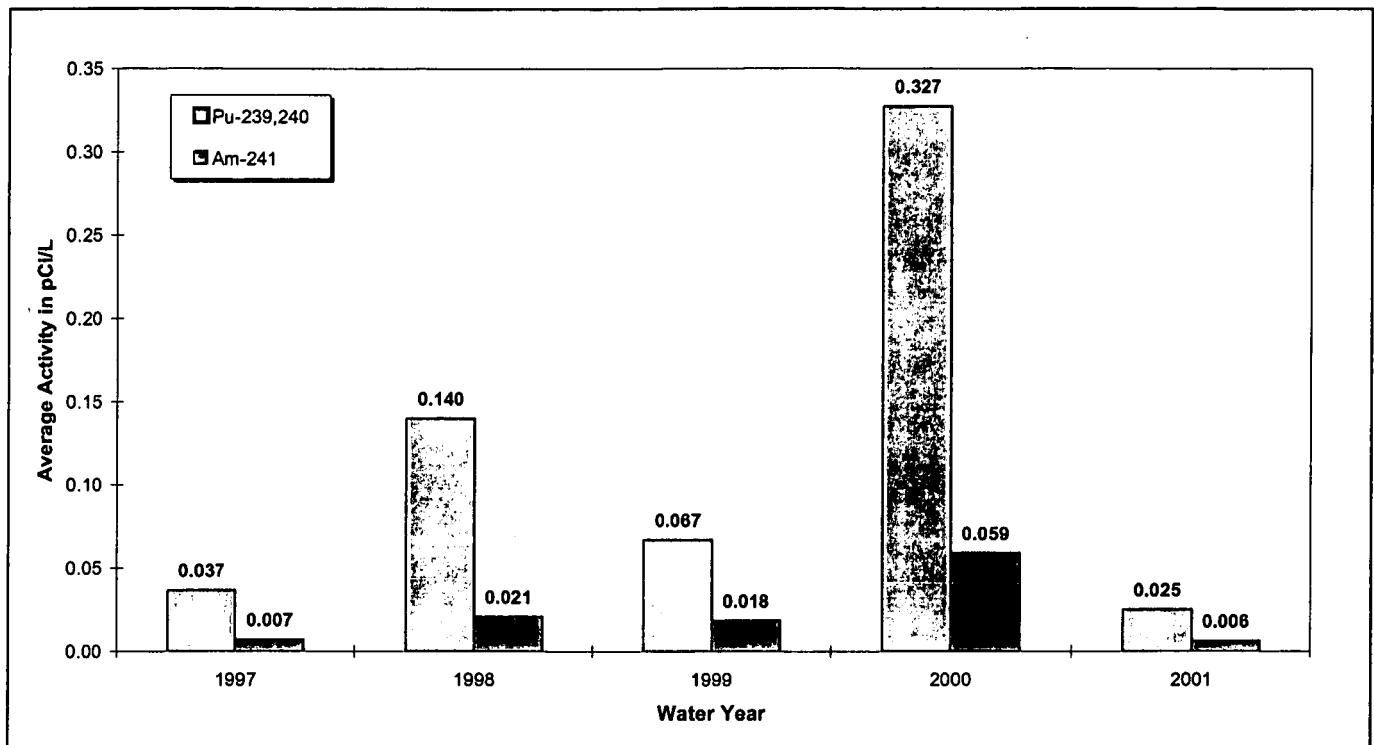


Figure 12-11. Annual Volume-Weighted Average Pu and Am Activities at SW027: WY97-01.

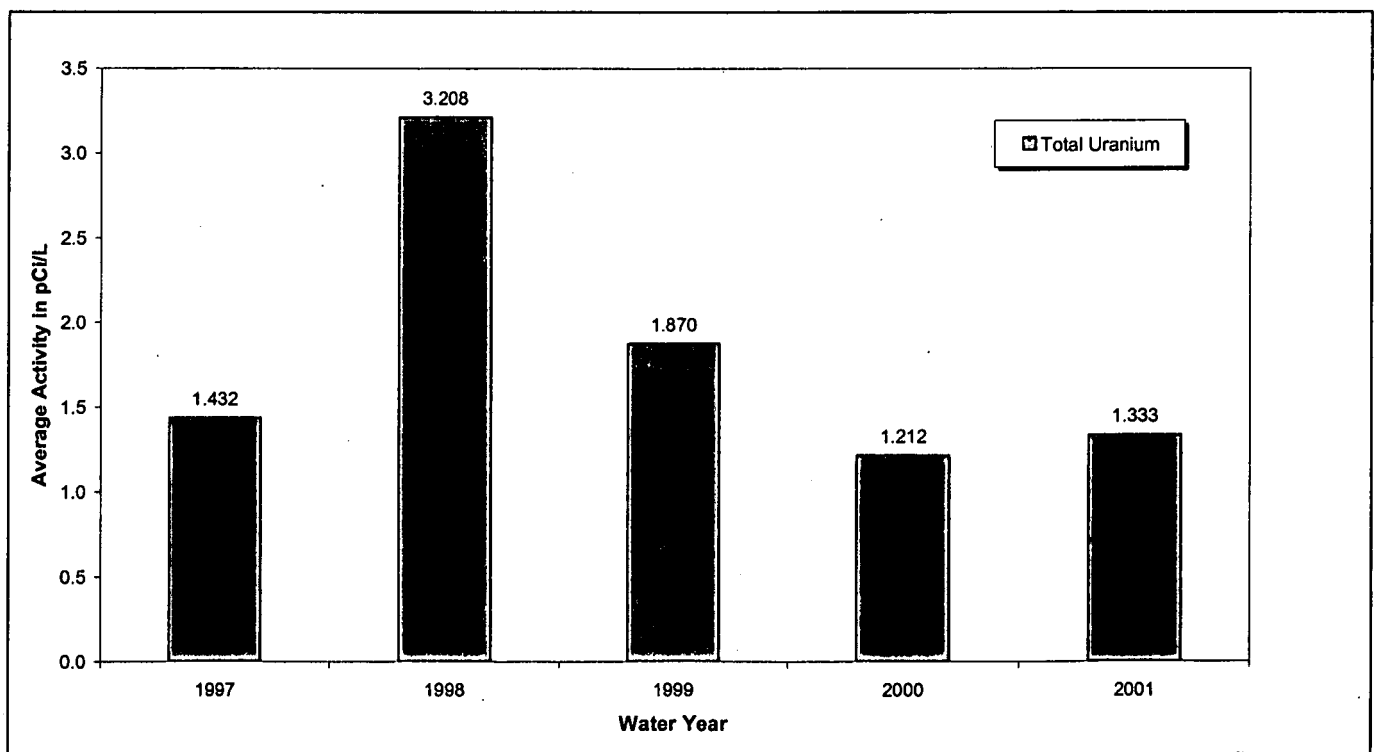
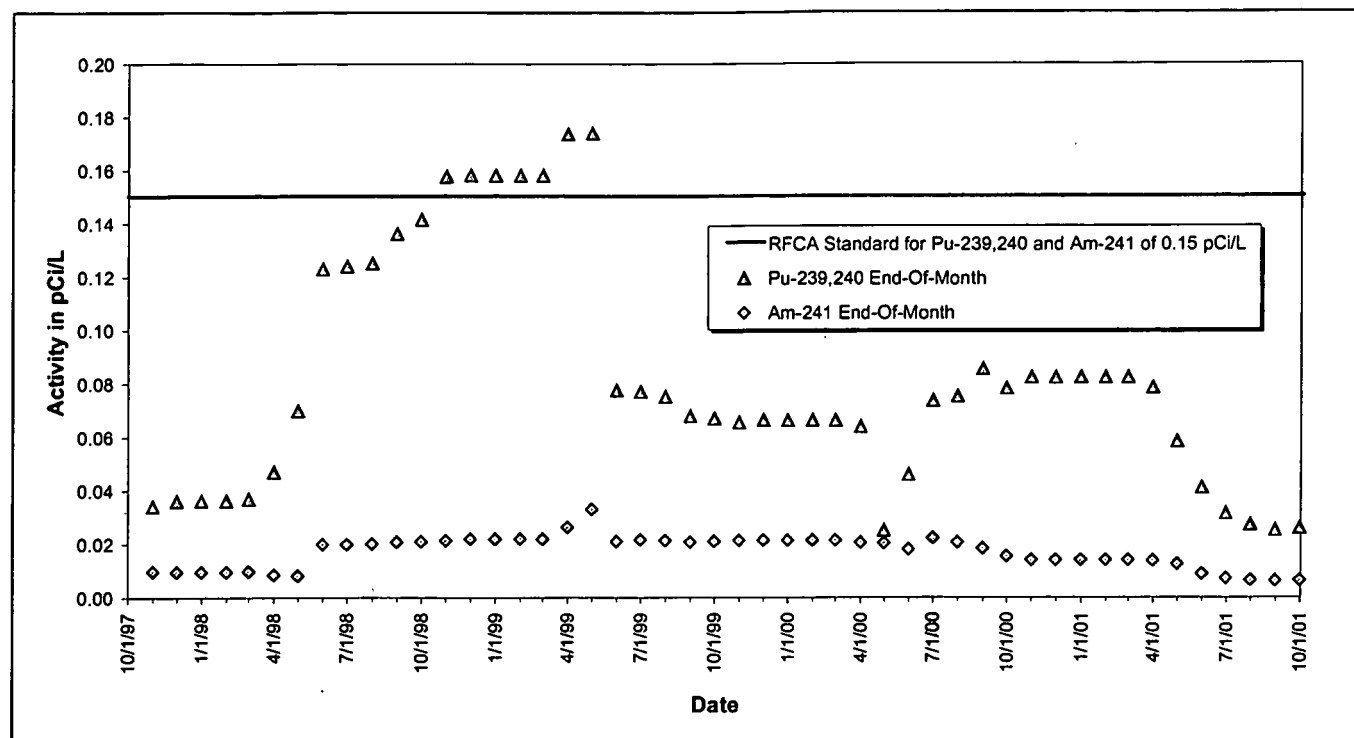


Figure 12-12. Annual Volume-Weighted Average Total Uranium Activities at SW027: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Action Level shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 12-13. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at SW027: WY97-01.

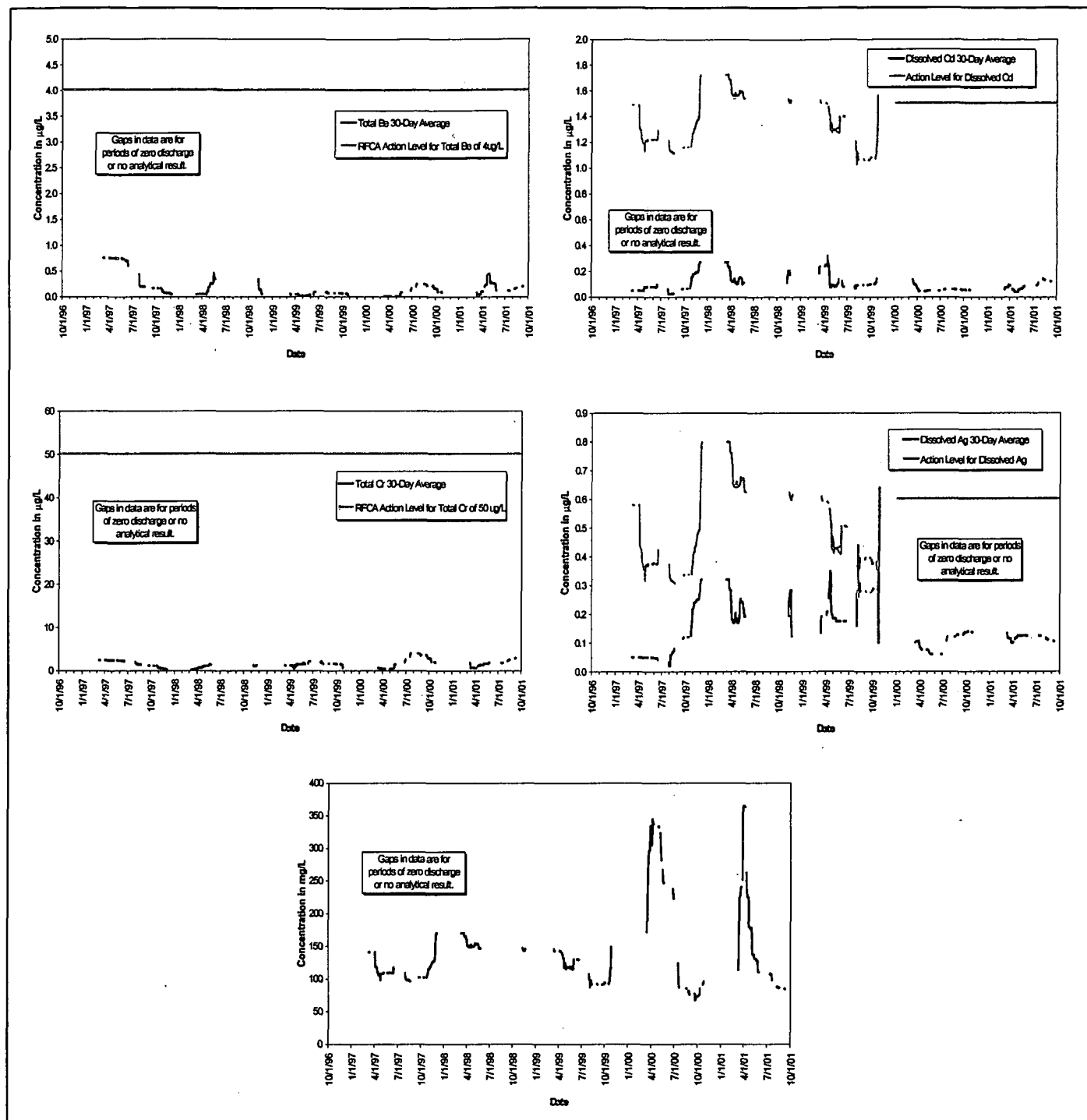
Table 12-12 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (WY97-01) were less than the action levels.

Figure 12-14 shows that none of the 30-day averages were reportable for Be, Cr, and Cd. For dissolved Ag, the 30-day average was above the hardness-adjusted action level. However, using the agreed upon fixed hardness of 143 mg/L noted above, these values were not reportable.

Table 12-12. Annual Volume-Weighted Average Hardness and Metals Concentrations at SW027 in WY97-01.

Water Year	Volume-Weighted Average Concentration (µg/L)				
	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag
1997	103	0.53	0.06	2.01	0.06
1998	149	0.13	0.15	0.85	0.21
1999	109	0.03	0.10	1.56	0.25
2000	148	0.26	0.06	3.92	0.09
2001	147	0.23	0.07	1.81	0.12
Total (WY97-01)	131	0.21	0.10	1.70	0.17

Note: Hardness units mg/L.



Note: Prior to 1/1/00, action levels for dissolved Cd and Ag were calculated using the analyte specific toxicity equation incorporating the 30-day volume-weighted hardness values.

Figure 12-14. Volume-Weighted 30-Day Average Metals and Hardness Concentrations at SW027: WY97-01.

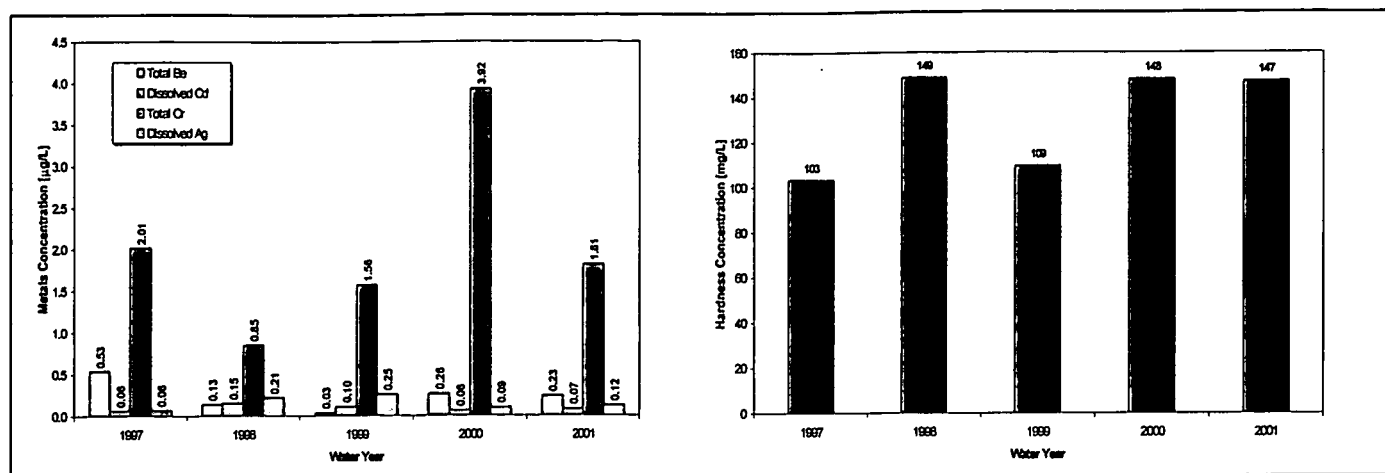


Figure 12-15. Annual Volume-Weighted Average Metals and Hardness Concentrations at SW027: WY97-01.

12.3.3 Location SW093

Monitoring location SW093 is located on N. Walnut Cr. at the perimeter of the IA 1300' upstream of the A-Series ponds. Figure 3-112 shows the drainage area for SW093. The 100, 300, 500, 700, and 900 areas all contribute flow to SW093.

Table 12-13 shows that all of the annual average Pu and Am activities were less than 0.15 pCi/L. Additionally, neither of the long-term Pu and Am averages (WY97-01) is greater than 0.15 pCi/L. The total uranium average activities are well below 10 pCi/L.

Figure 12-16 shows one period of reportable 30-day averages for Pu. In response, the Site was required to perform a source evaluation to address these reportable values. A summary of the extensive investigations is given in Section 6 of the Automated Surface-Water Monitoring Report: Water Years 1997-2000.

Figure 12-17 shows that the 30-day average for uranium was below reporting levels for the entire period.

Figure 12-20 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Action Level.

Table 12-13. Annual Volume-Weighted Average Radionuclide Activities at SW093 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,240	Total Uranium
1997	0.045	0.073	2.764
1998	0.018	0.019	2.116
1999	0.025	0.039	1.935
2000	0.022	0.038	2.137
2001	0.011	0.015	2.086
Total (WY97-01)	0.023	0.035	2.181

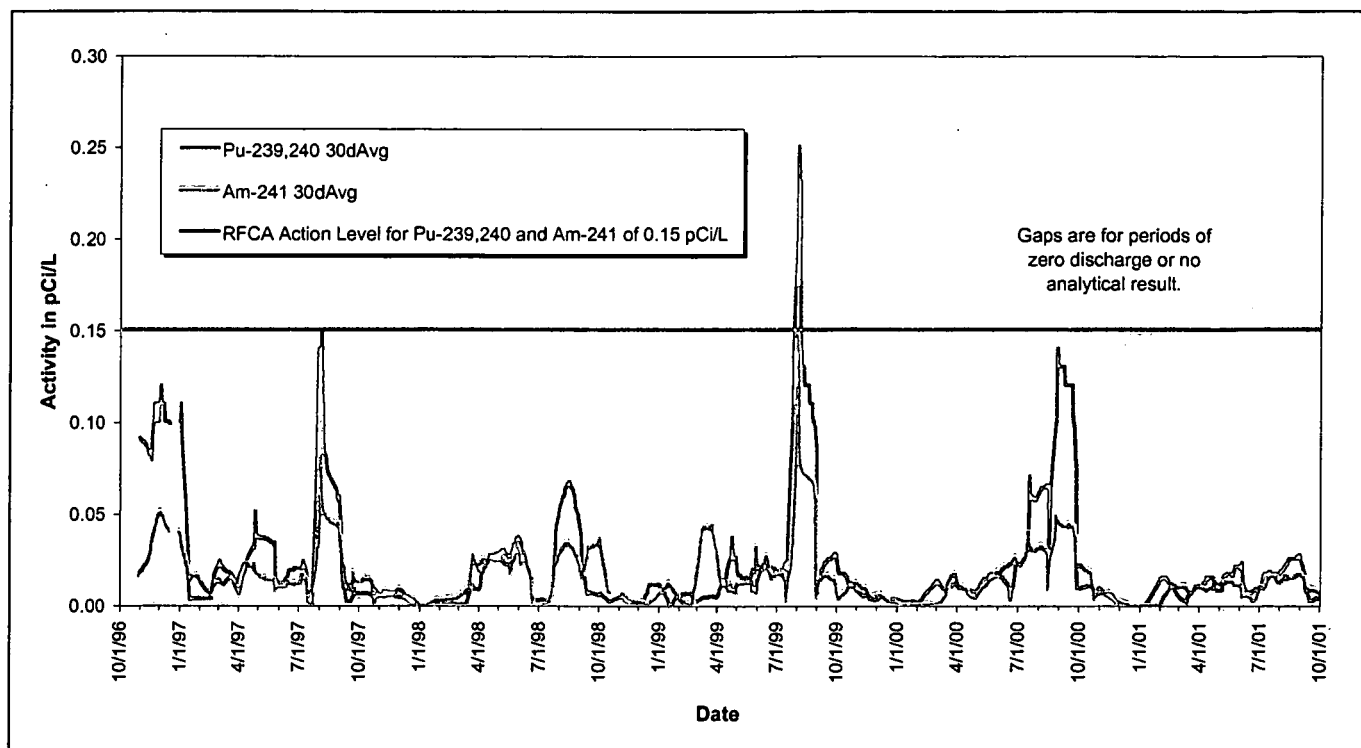


Figure 12-16. Volume-Weighted 30-Day Average Pu and Am Activities at SW093: WY97-01.

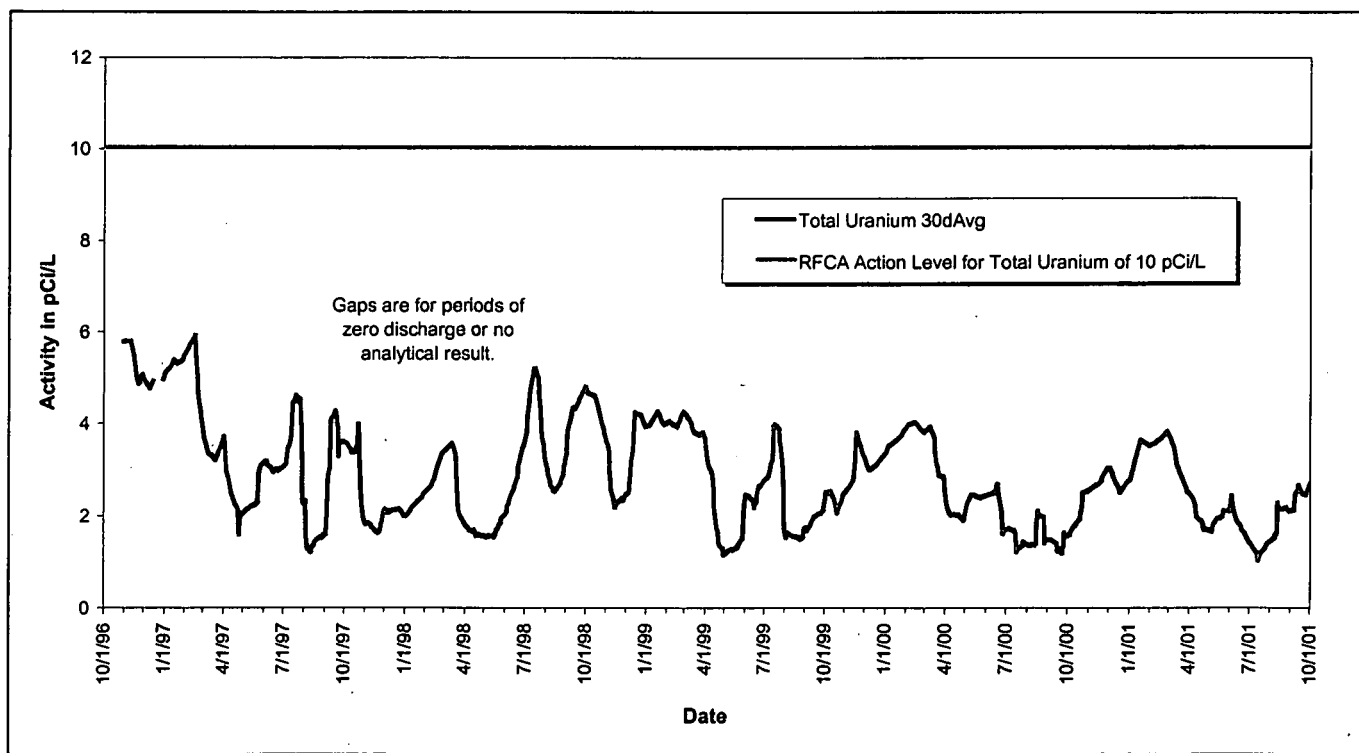


Figure 12-17. Volume-Weighted 30-Day Average Total Uranium Activities at SW093: WY97-01.

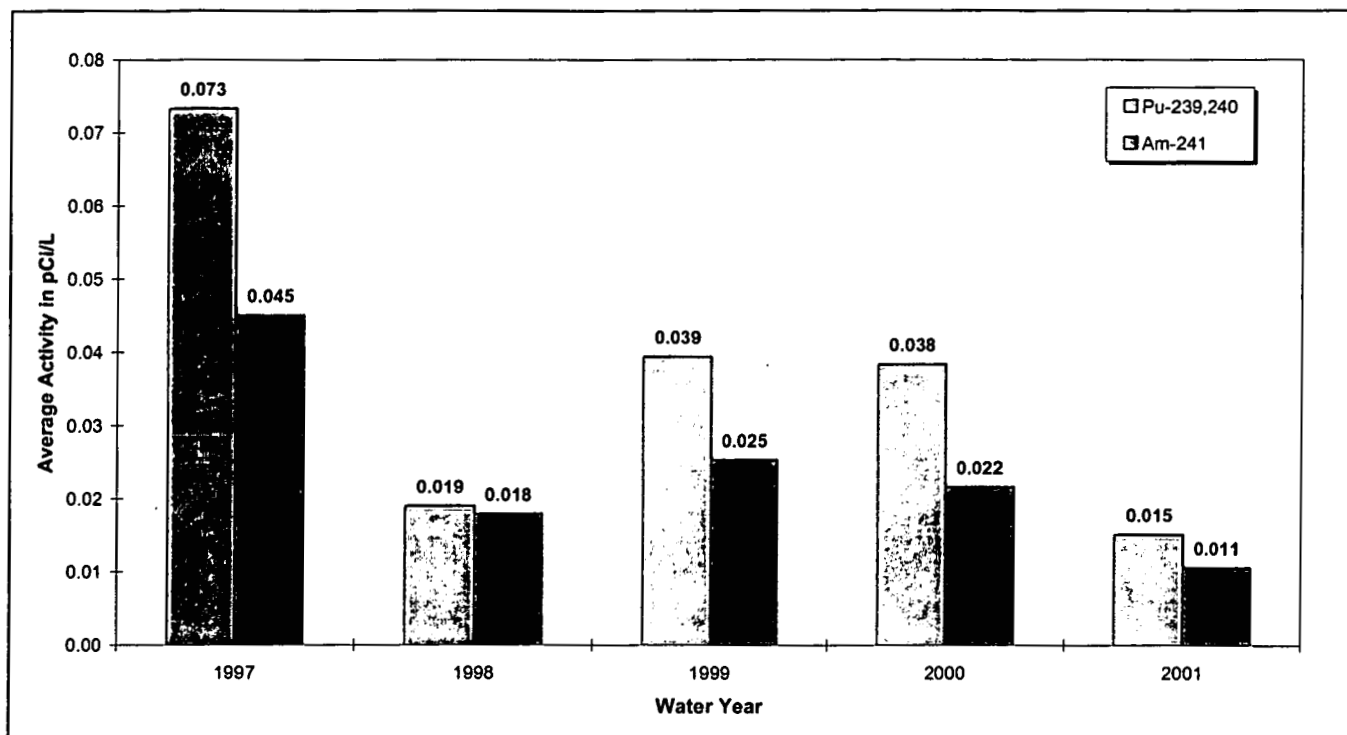


Figure 12-18. Annual Volume-Weighted Average Pu and Am Activities at SW093: WY97-01.

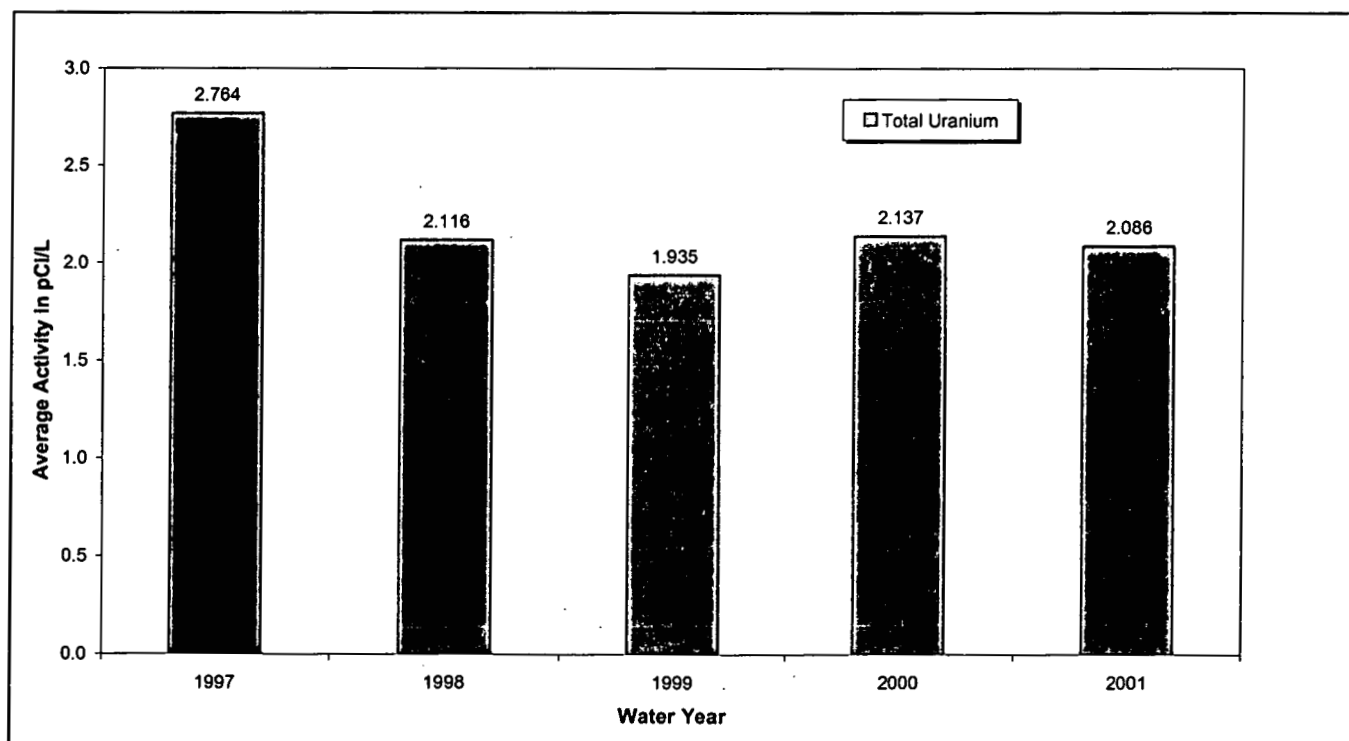
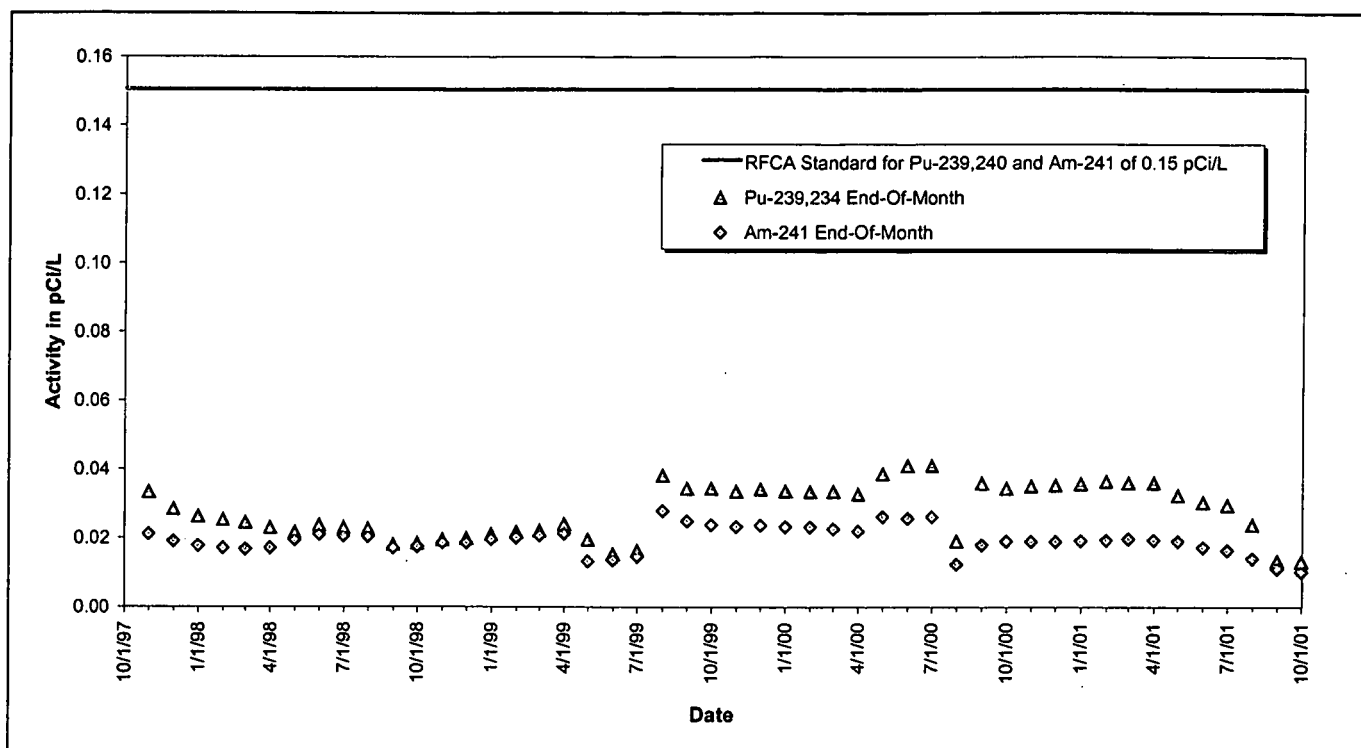


Figure 12-19. Annual Volume-Weighted Average Total Uranium Activities at SW093: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Action Level shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 12-20. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at SW093: WY97-01.

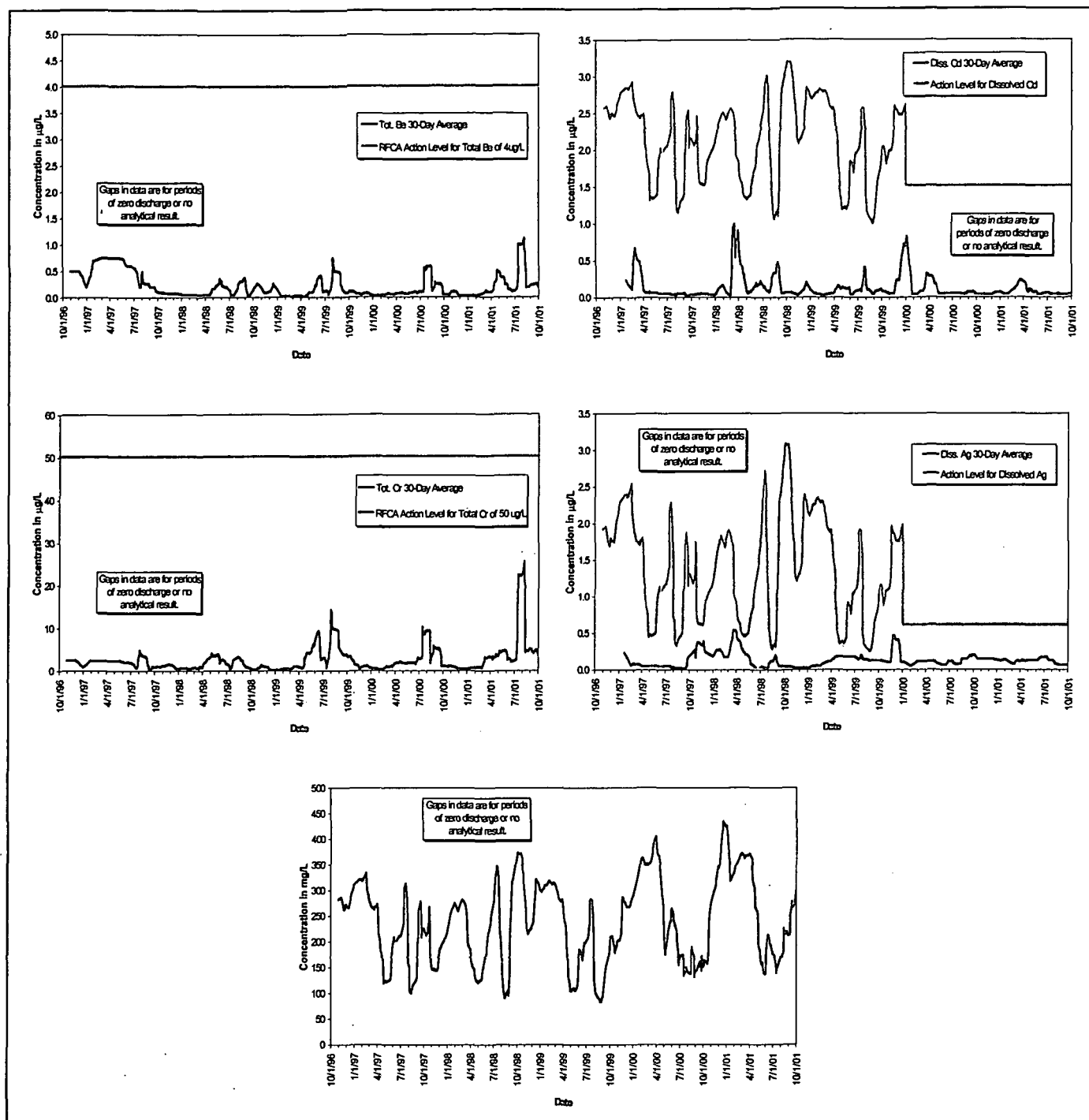
Table 12-14 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (WY97-01) were less than the action levels.

Figure 12-21 shows that none of the 30-day averages were reportable.

Table 12-14. Annual Volume-Weighted Average Hardness and Metals Concentrations at SW093 in WY97-01.

Water Year	Volume-Weighted Average Concentration (µg/L)				
	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag
1997	172	0.57	0.09	2.79	0.06
1998	175	0.12	0.20	2.12	0.25
1999	151	0.21	0.10	5.16	0.14
2000	220	0.20	0.13	3.85	0.13
2001	239	0.36	0.07	6.38	0.12
Total (WY97-01)	189	0.28	0.12	4.03	0.15

Note: Hardness units mg/L.



Note: Prior to 1/1/00, action levels for dissolved Cd and Ag were calculated using the analyte specific toxicity equation incorporating the 30-day volume-weighted hardness values.

Figure 12-21. Volume-Weighted 30-Day Average Metals and Hardness Concentrations at SW093: WY97-01.

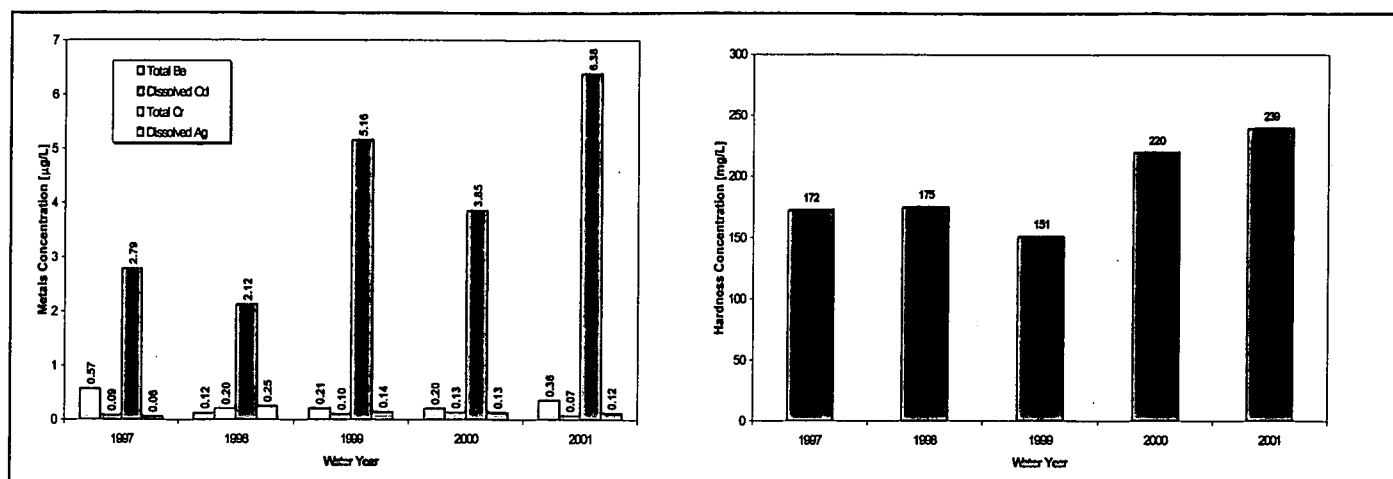


Figure 12-22. Annual Volume-Weighted Average Metals and Hardness Concentrations at SW093: WY97-01.

12.3.4 Location 995POE

Monitoring location 995POE is located at the B995 complex UV disinfection building on the WWTP effluent.

Table 12-15 shows that all of the annual average Pu and Am activity was less than 0.15 pCi/L. The total uranium average activity is well below 10 pCi/L, and the tritium activity is well below 500 pCi/L.

Figure 12-23 shows no reportable 30-day averages for Pu or Am. Figure 12-24 shows that the 30-day average for tritium was below reporting levels for the entire period. Finally, Figure 12-25 shows that the 30-day average for uranium was below reporting levels for the entire period.

The 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods) are not shown as the 995POE began operation at the beginning of WY01.

Table 12-15. Annual Volume-Weighted Average Radionuclide Activities at 995POE in WY01.

Water Year	Volume-Weighted Average Activity (pCi/L)			
	Am-241	Pu-239,240	Tritium	Total Uranium
2001	0.004	0.003	10	0.769

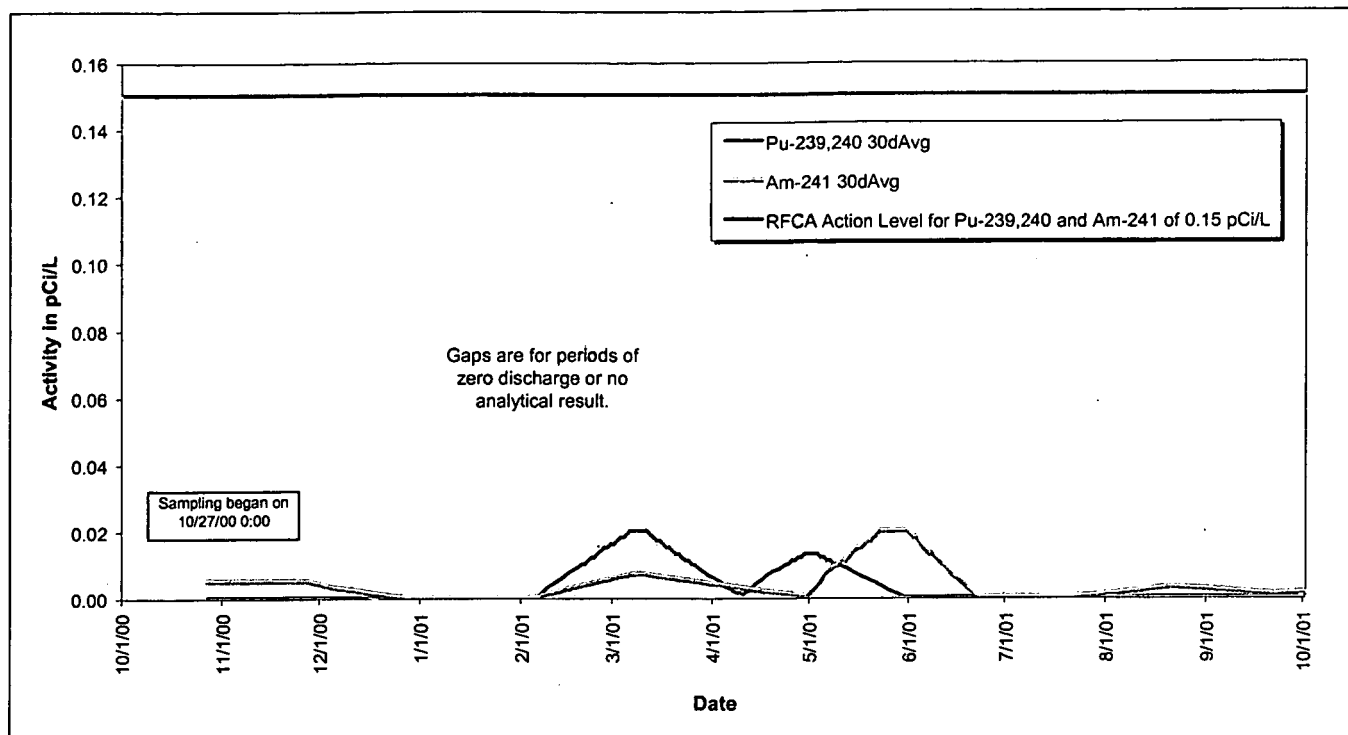


Figure 12-23. Volume-Weighted 30-Day Average Pu and Am Activities at 995POE: WY01.

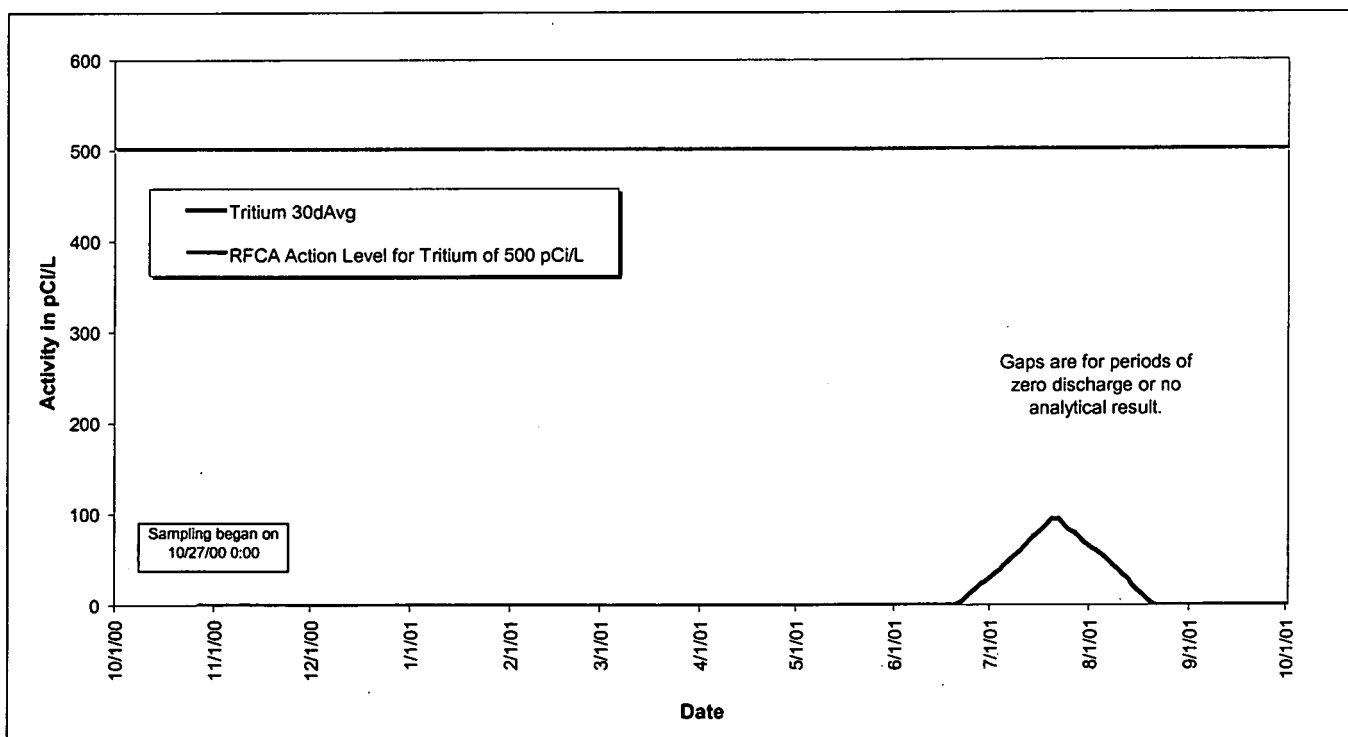


Figure 12-24. Volume-Weighted 30-Day Average Tritium Activities at 995POE: WY01.

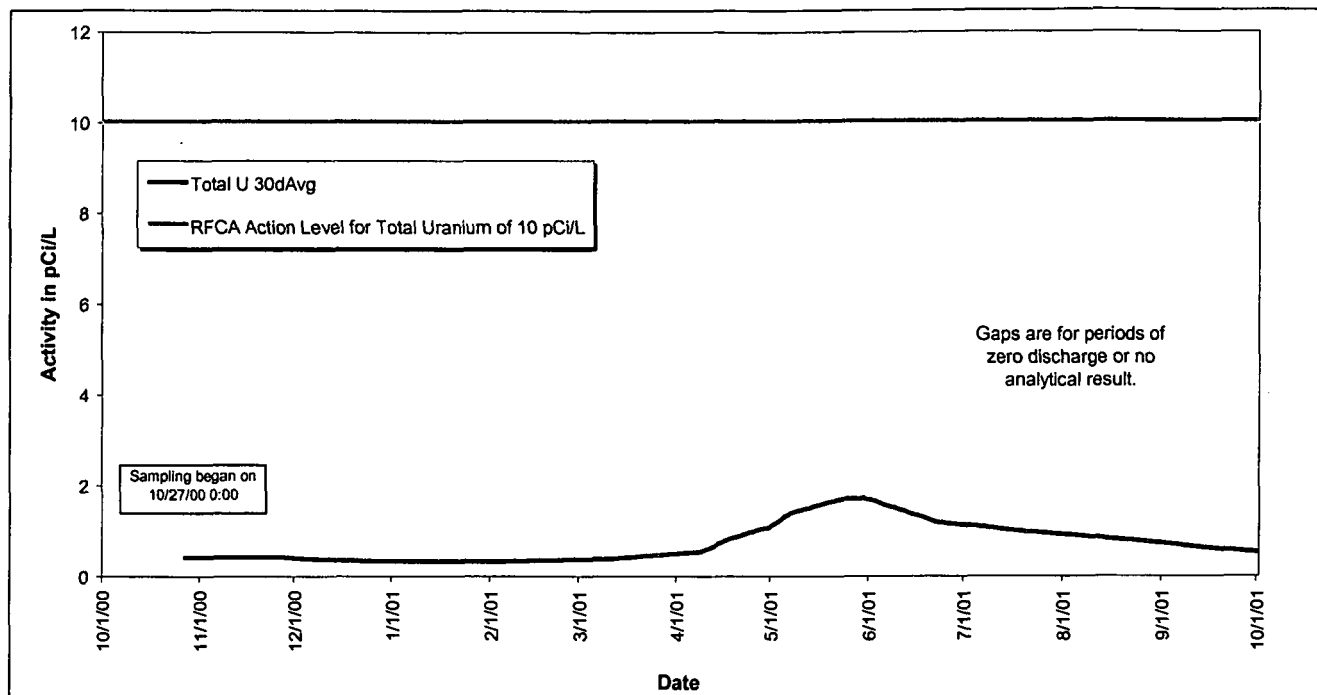


Figure 12-25. Volume-Weighted 30-Day Average Total Uranium Activities at 995POE: WY01.

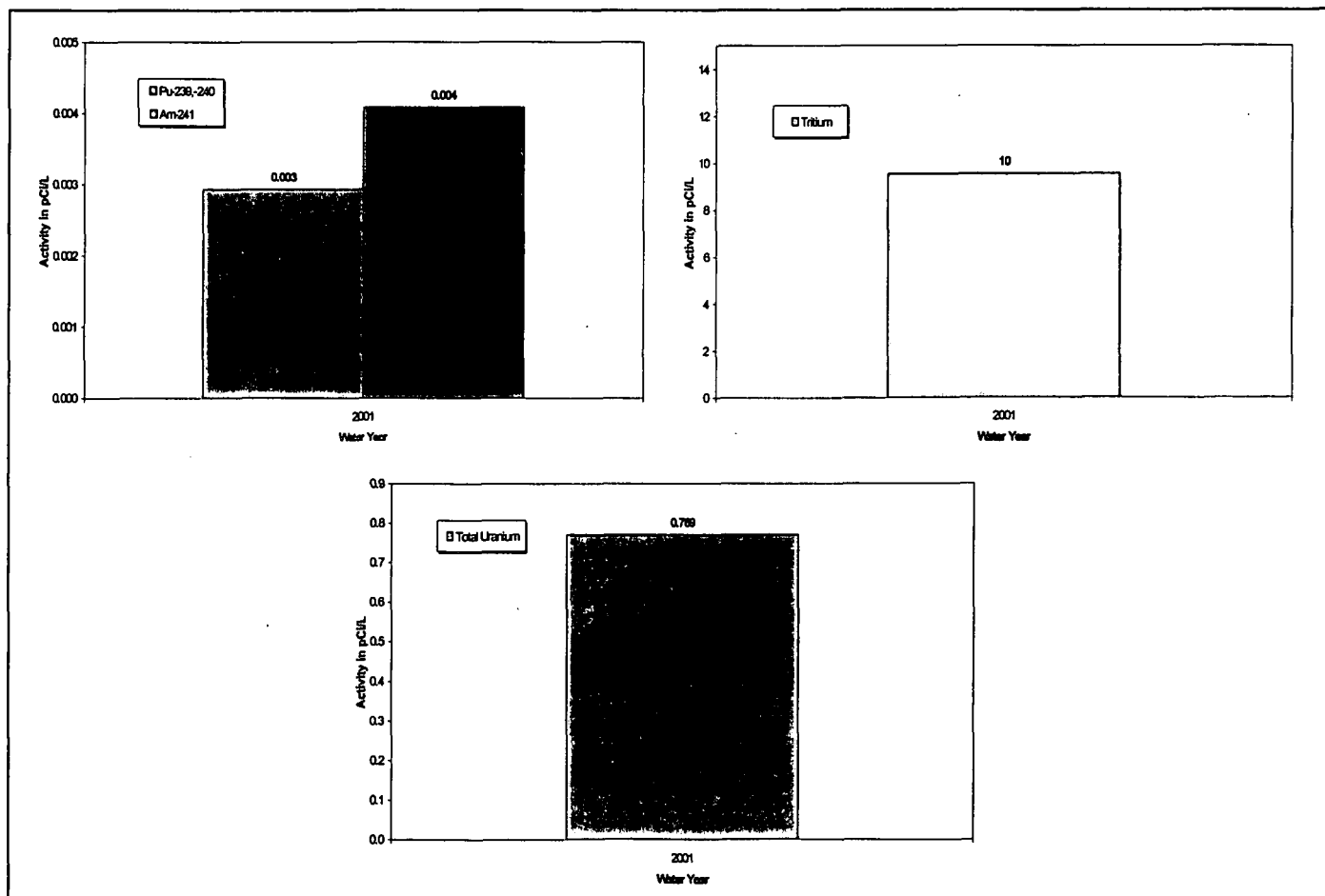


Figure 12-26. Annual Volume-Weighted Average Radionuclide Activities at 995POE: WY01.

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13. STREAM SEGMENT 4 POINT OF COMPLIANCE MONITORING

RFCA provides specific standards for Walnut and Woman Creeks below the terminal ponds (Segment 4). These criteria and the responses to them are different than the criteria and actions associated with Segment 5. This section deals only with monitoring discharges from the terminal ponds into Segment 4 and the additional POCs for Segment 4 at Indiana Street. Terminal pond discharges are monitored by POCs GS11, GS08, and GS31. Walnut Creek is monitored at Indiana Street by POC GS03. Woman Creek is monitored at Indiana Street by POC GS01. These locations are shown on Figure 13-1.

With the completion of the Woman Creek Reservoir, located just east of Indiana Street and operated by the city of Westminster, all Woman Creek flows are detained in cells of the reservoir until the water quality has been assured by monitoring of Woman Creek at Indiana Street. There is concern that solely monitoring Pond C-2 discharge does not adequately demonstrate that all water leaving the Site via Woman Creek is meeting the radiologic standards. All Woman Creek water, either combined with Pond C-2 discharge or flowing in the absence of any Pond C-2 water, enters the Woman Creek Reservoir. This is the basis for setting an additional RFCA POC for Woman Creek at Indiana Street (GS01) for those radiologic contaminants that could be directly attributable to the Site (i.e., not naturally occurring).

For Walnut Creek, a similar POC, GS03, has been established at Walnut Creek and Indiana Street. As for Woman Creek, it is possible that contaminated overland runoff or landfill drainage may enter Walnut Creek below the terminal pond monitoring points (GS11 and GS08), yet upstream of Indiana Street.

13.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The analytical decision inputs are those analytes specified as the Segment 4 AoIs (Table 13-1), as sampled at the POCs for Stream Segment 4. Monitoring performed for Stream Segment 4 is limited to POCs GS11, GS08, GS31, GS03, and GS01.

Sampling for AoIs at POCs is performed by collecting continuous flow-paced composite samples. The recommended monitoring design detailed in the IMP is to take samples for WY01 as specified in Table 13-4 and Table 13-5. Flow-paced monitoring is maintained at all times for all five POCs in Segment 4, although no samples are anticipated from terminal pond stations except during planned pond discharges.

Historically, terminal pond discharges occurred on average once per year for Pond C-2 and 9 times per year for A-4 and B-5 combined. Since the DQO process originally targeted 3 composite samples per discharge (for WY97), terminal pond POCs targeted 30 composite samples to be collected annually.

During WY97, all routine North and South Walnut Creek water was discharged from A-4 (B-5 was pump transferred to A-4, except during periods of high stormwater runoff). Starting in WY98, Pond B-5 began routine direct discharge to Walnut Creek, effectively dividing discharges to Walnut Creek between Ponds A-4 and B-5. Therefore, sampling protocols starting in WY98 were modified such that the total number of continuous flow-paced composite samples to be collected annually for discharges from both A-4 and B-5 would be comparable to the WY97 targets. For Fiscal Years 1993 through 1997, the total combined discharge volume for A-4 and B-5 was 687 Mgals in 43 discharge batches, or 16 Mgals per discharge batch on average. Targeting three composite samples per discharge gives one composite sample per 5.3 Mgals of discharge volume. This composite sample frequency (1 per 5.3 Mgals) will preserve the targeted sampling frequencies (based on discharge volume) while maintaining effective cost controls (based on total sample costs).

For FY01 planning purposes, 10 samples were to be collected from A-4, and 17 from B-5, resulting in the collection of the targeted 27 composite samples (see Table 13-5). This sample planning is also dependent on the routing for the WWTP effluent. Any future changes in the management of Walnut Creek water could result in sampling protocol modifications to preserve the initial intent of the DQO process.

Table 13-1. RFCA Segment 4 Aols.

Terminal Pond POCs		
Radionuclides:	Total Pu-239,240	Known carcinogen. High level of public concern. Known releases (within the past 8 years) have exceeded RFCA stream standards and action levels. This provides reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
	Total U-233,234, U-235, U-238	Known renal toxicity. Present onsite. Past exceedances provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
Real Time Monitoring of Physical and Indicator Parameters: These parameters provide real-time alarms for a variety of regulated contaminants, and are also a required component of monitoring for Aols. They require no laboratory analyses, and are the Site's most cost effective defensive monitoring.	Total Am-241	Known carcinogen. Present onsite. Known past exceedances provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
	pH	Extremes are toxic to humans and ecology. Regulatory concern due to chromic acid incident. Real-time monitoring is inexpensive and effective method of detecting acid spills such as (chromic acid or plutonium nitrate) or failure of treatment systems.
	Conductivity	Conductivity is an indicator of total dissolved ions, metals, anions, and pH. Real-time monitoring of conductivity is an inexpensive indicator of overall water quality.
	Turbidity	Turbidity is a general indicator of elevated contaminant levels, and may be correlated with Pu.
	Nitrate	Past releases near RFCA stream standards and action levels upstream of ponds provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels. Certain discharges often include nitrate, and may challenge RFCA action levels.
	Flow	Required to detect flow events, pace automatic samplers, evaluate contaminant loads, and plan pond operations and discharges. Affects nearly every decision rule, and is the most commonly discussed attribute of Site surface waters.
Indiana Street POCs		
Radionuclides:	Total Pu-239,240	High level of public concern. Known carcinogen. Known past releases (within the past 8 years) have exceeded RFCA stream standards and action levels. This provides reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
	Total Am-241	Known carcinogen. Present onsite. Known past exceedances provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
	Tritium	Tritium is an Aol for the cities, due to the past release of tritium (1973).
Real Time Monitoring of Physical and Indicator Parameters:	Water-Quality Parameters	Indiana Street is not a point of compliance for the real-time monitoring parameters.
	Flow	Required to detect flow events, pace automatic samplers, and evaluate contaminant loads. Affects nearly every decision rule, and is the most commonly discussed attribute of Site surface waters.

The source(s) of the water sampled at the Indiana Street POCs (GS01 and GS03) must be determined prior to sample planning at these locations. Monitoring at GS01 and GS03 calls for samples to be segregated based on water origin (natural creek flows or terminal pond discharges commingled with natural flows).

POC GS01 targets 3 samples during each Pond C-2 discharge; storm runoff and baseflow samples are based on average annual volumes. During storm runoff and baseflow, the target at GS01 is one sample per 500,000

gallons, with a maximum of 3 samples during any one month (see Table 13-5). GS03 targets 27 samples during A-4 and B-5 discharges (GS03 collects the same number of composite samples as the terminal pond POCs for each discharge). During storm runoff and baseflow periods between pond discharges, GS03 targets 2 composite samples every 15 days. The goal is to have at least 2 analytical results for any 30-day period for averaging purposes. The Site may combine samples of the same flow pacing to reduce analytical costs and avoid samples of non-sufficient quantity for analysis.

13.2 WY01 MONITORING SCOPE

Table 13-2. POC Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS11	Pond A-4 outlet works	24" Parshall Flume	Yes
GS08	Pond B-5 outlet works	24" Parshall Flume	Yes
GS31	Pond C-2 outlet works	24" Parshall Flume	Yes
GS03	Walnut Creek and Indiana St.	6" and 36" Parallel Parshall Flumes	Yes
GS01	Woman Creek and Indiana St.	9" Parshall Flume	Yes

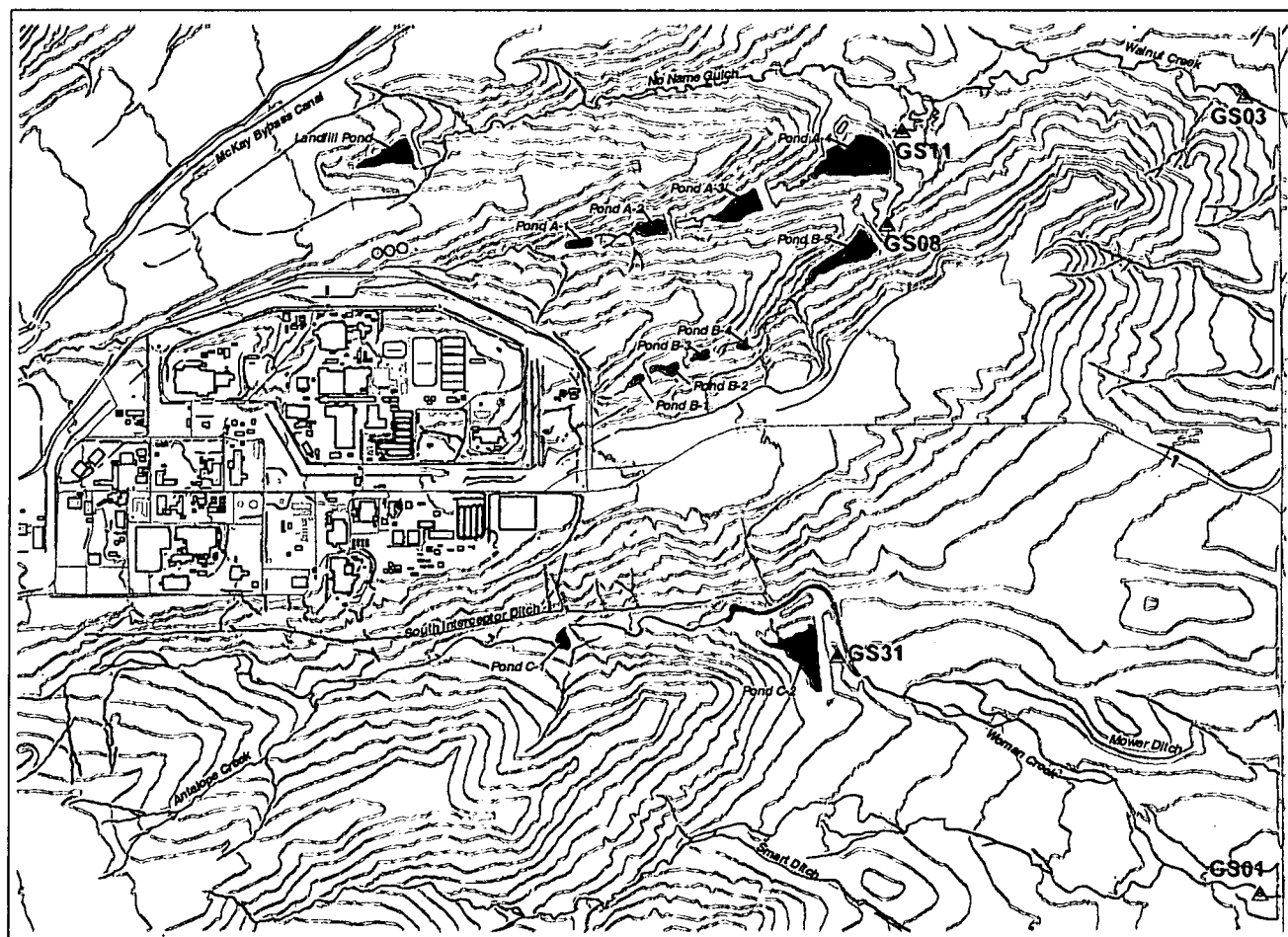


Figure 13-1. Water Year 2001 Point of Compliance Monitoring Locations.

Table 13-3. POC Field Data Collection: Parameters and Frequency.

ID Code	Parameter	
	Discharge	Real-Time pH, Conductivity, Turbidity, Nitrate
GS11	15-min continuous	15-min continuous
GS08	15-min continuous	15-min continuous
GS31	15-min continuous	15-min continuous
GS03	15-min continuous	None
GS01	15-min continuous	None

Note: All locations collect both 5- and 15-minute interval flow data.

Table 13-4. POC Sample Collection Protocols.

ID Code	Frequency: WY01 Actual (Target)	Type ^b
GS11	10 (10 per year ^a)	Continuous flow-paced composites
GS08	15 (17 per year ^a)	Continuous flow-paced composites
GS31	3 (3 per year ^c)	Continuous flow-paced composites
GS03	29 (58 per year ^a)	Continuous flow-paced composites
GS01	22 (28 per year ^c)	Continuous flow-paced composites

Notes: ^a Assuming one composite sample per 5.3 Mgals of terminal pond discharge volume. Number may vary due to pond-water management activities.

^b Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

^c Assumes one C-2 discharge per year; 3 composite samples per discharge.

Table 13-5. POC Target Sample Distribution.³²

Time Period	Pond: WY01 Actual (Target)			Walnut Cr. at Indiana St. [GS03]: WY01 Actual (Target)	Woman Cr. at Indiana St. [GS01]: WY01 Actual (Target)	Total Number of Samples: WY01 Actual (Target)
	A-4 [GS11]	B-5 [GS08]	C-2 [GS31]			
During Discharge	10 (10 ^a)	15 (17 ^a)	3 (3 ^b)	23 (27 ^a)	2 (3 ^b)	53 (60)
Storm and Base Flow						
October 00	NA	NA	NA	0 (3)	0 (1)	0 (4)
November 00	NA	NA	NA	0 (3)	3 (2)	3 (5)
December 00	NA	NA	NA	0 (3)	2 (2)	2 (5)
January 01	NA	NA	NA	0 (3)	3 (2)	3 (5)
February 01	NA	NA	NA	0 (2)	3 (2)	3 (4)
March 01	NA	NA	NA	1 (3)	2 (3)	3 (6)
April 01	NA	NA	NA	1 (1)	3 (4)	4 (5)
May 01	NA	NA	NA	1 (2)	3 (4)	4 (6)
June 01	NA	NA	NA	0 (2)	3 (3)	3 (5)
July 01	NA	NA	NA	3 (3)	0 (1)	3 (4)
August 01	NA	NA	NA	0 (2)	0 (1)	0 (3)
September 01	NA	NA	NA	0 (2)	0 (0)	0 (2)
Annual Totals	10 (10)	15 (17)	3 (3)	29 (56)	22 (28)	79 (114)

Notes: ^a Assuming one composite sample per 5.3 Mgals of terminal pond discharge volume. Number may vary due to pond-water management activities.

^b Assumes one C-2 discharge per year; 3 composite samples per discharge.

^c GS01 and GS31 distribution based on PNNL recommendations; GS03 distribution based on average monthly number of day without a terminal pond discharge using historic data (period when neither A-4 or B-5 direct discharged) assuming approximately one composite every 8 days.

³² The number of samples collected at each pond depends on the amount of water discharged from each pond. Of the combined North and South Walnut Creek inflows, 66% flows to B-5 and 34% flows to A-4, on average. Depending on pond operation protocols, it is possible that no water could be direct discharged from Pond B-5, and no samples would be collected at GS08. All B-5 water would be pumped to A-4, and all POC samples for both A-4 and B-5 would then be collected at GS11. Regardless, the targeted 27 samples is specified for budget planning purposes.

Table 13-6. POC Analytical Targets (Analyses per Year).

ID Code	TSS ^a : WY01 Actual (Target)	Pu, U, Am: WY01 Actual (Target)	Pu, Am, Tritium: WY01 Actual (Target)
GS11	8 (10)	10 (10)	NA
GS08	9 (17)	15 (17)	NA
GS31	3 (3)	3 (3)	NA
GS03	18 (56)	NA	29 (56)
GS01	5 (28)	NA	22 (28)

Notes: ^a Ideally, TSS would be analyzed for all samples collected at the above locations. However, continuous flow-paced sampling protocols often result in composite samples which are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS can not be analyzed for all continuous flow-paced composite samples, but will be analyzed when possible.

13.3 DATA EVALUATION

Sampling for AoIs at POCs is performed by collecting continuous flow-paced composite samples. Indicator parameters are measured using real-time water-quality probes. These AoIs and indicator parameters are evaluated using 30-day or 1-day moving averages, as specified in RFCA and implemented by the ALF or DQO working groups involving consensus of all parties to RFCA. Pu, Am, U, and tritium are evaluated using volume-weighted 30-day moving averages at POCs³³. Indicator parameters pH and nitrate are evaluated as 1-day arithmetic averages. Indicators are not evaluated under this monitoring objective for the Indiana Street POCs.

The parties to RFCA agree that continuous monitoring probes will be used as indicators that may suggest a need for additional monitoring, mitigating action, or management decision. The parties agree that compliance and enforcement issues will be resolved on the basis of standard analytical procedures specified by the applicable regulation or agreement, e.g., NPDES, RFCA, or CERCLA. The parties agree that continuous monitoring field probes should NOT be used to determine compliance or serve as a basis for enforcement action, unless the applicable regulation specifies such a probe as the enforceable analytical method for a particular measurement.

Generally, analytical data evaluation is performed as data become available. If an initial qualitative screening indicates that an analytical result is higher than the standard for a particular AoI, then the 30-day average is calculated immediately. If the 30-day average values are reportable, then validation is requested for all data packages used in the calculation. The desired evaluation frequency is semi-monthly, within one week of the 15th and last day of any given month. RFCA requires that DOE, RFFO inform regulators within 15 days of DOE, RFFO gaining knowledge (not just a suspicion) that an exceedance (verified) has (actually) occurred.

IF The volume-weighted 30-day moving average for any AoI in Stream Segment 4, as represented by samples from the specified RFCA POCs (i.e., terminal pond discharges and Indiana Street) exceeds the appropriate RFCA standard (Table 13-8)

THEN The Site must:

- Notify EPA, CDPHE, and either Broomfield or Westminster, whichever is affected;
- Submit a plan and schedule to evaluate for source location, and implement mitigating action if appropriate; and
- The Site may receive a notice of violation.

³³ The 30-day average for a particular day is calculated as a volume-weighted average of a 'window' of time containing the previous 30-days which had both flow and an analytical result. Each day has its own discharge volume (measured at the location with a flow meter) and activity (analytical result from the sample in place at the end of that day). Therefore, there are 365 30-day moving averages for a location which flows all year (366 in a leap year). At locations which monitor pond discharges or have intermittent flows, 30-day averages are calculated as averages of the previous 30 days of greater than zero flow. For days where no activity is available, either due to failed lab analysis or NSQ for analysis, no 30-day average is reported. The calculation of 30-day averages is discussed in detail in Appendix B.1: Data Evaluation Methods.

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Table 13-7. POC Monitoring Analytical Data Evaluation.

ID Code	Evaluation Type ^a
GS11	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS08	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS31	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS03	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS01	30-Day Volume-Weighted Moving Averages; Loading Analysis

Notes: ^a Details on the evaluation of analytical results are given in Appendix B.1: Data Evaluation Methods. Loading analysis for POCs is given in Section 5.

Table 13-8. POC Monitoring RFCA Standards.

Analyte	Standard
Am-241	0.15 pCi/L
Pu-239,240	0.15 pCi/L
Total Uranium	10 pCi/L (Walnut Cr.); 11 pCi/L (Woman Cr.)
Tritium	500 pCi/L

Note: The above standards only apply to 30-day average values. Comparisons to other values are provided for reference only.

The following sections include summary tables and plots showing the 30-day moving averages, periodic volume-weighted averages, and 365 calendar-day volume-weighted averages for the POC analytes.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

The methods used for the evaluations are given in Appendix B.1: Data Evaluation Methods.

The loading analysis for the POCs is presented in Section 5.

Plots of mean daily water temperature, specific conductivity, pH, and turbidity values (terminal pond POCs only) are given below.³⁴ Plots of mean daily water temperature, specific conductivity, and pH for the Indiana Street POCs (GS01 and GS03) are given in Section 14: Non-POC Monitoring at Indiana Street. More detailed data for all parameters are presented in Appendix B.5.2. The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

13.3.1 Location GS01

Monitoring location GS01 is located on Woman Cr. at Indiana Street. Figure 3-8 shows the drainage area for GS01. The southern portion of the IA and Pond C-2 contribute flow to GS01.

Table 13-9 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-01) are well below 0.15 pCi/L. The average tritium activities are all well below 500 pCi/L.

³⁴ Mean daily water-quality values are given for days of measurable flow. Some data may be missing due to equipment failures and removal for calibration.

Figure 13-2 and Figure 13-3 show no occurrences of reportable 30-day averages.

Figure 13-6 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-9. Annual Volume-Weighted Average Radionuclide Activities at GS01 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,-240	Tritium
1997	0.003	0.010	70
1998	0.005	0.006	136
1999	0.005	0.008	107
2000	0.004	0.003	80
2001	0.004	0.006	11
Total (WY97-01)	0.005	0.007	97

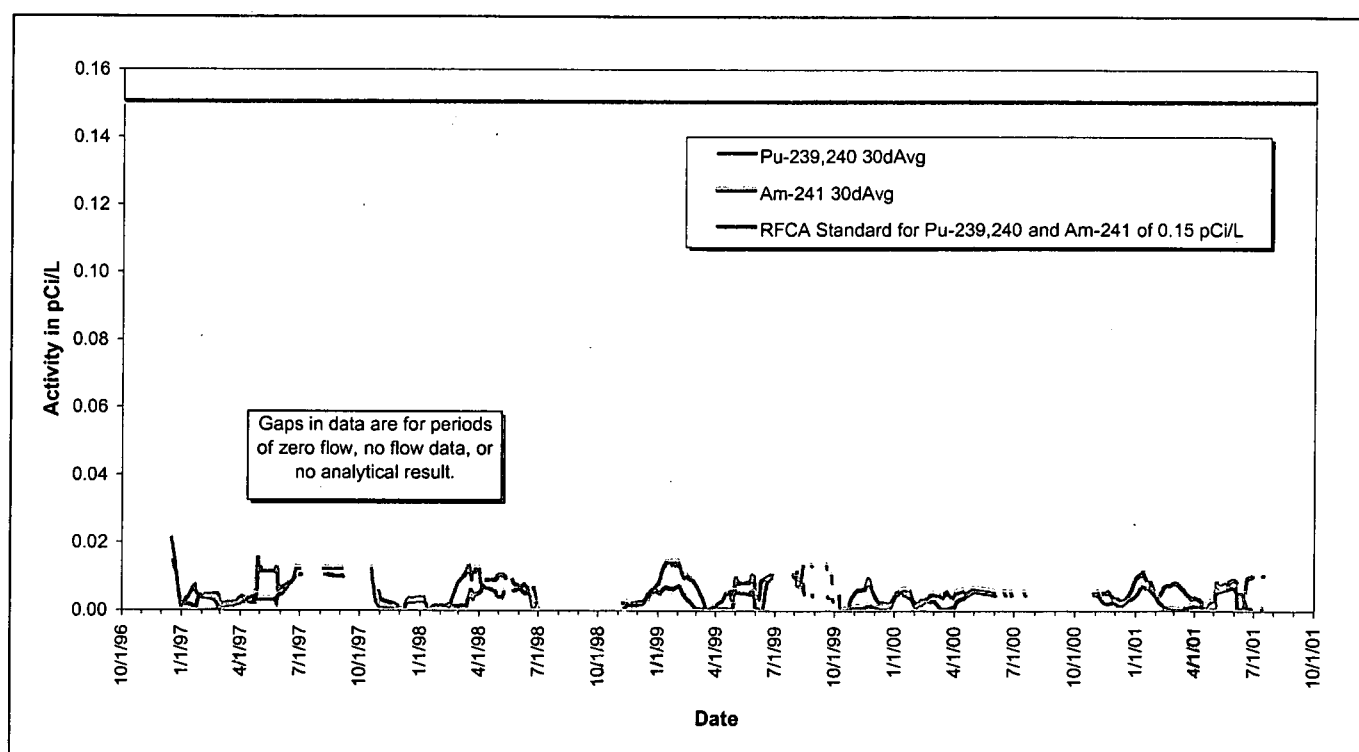


Figure 13-2. Volume-Weighted 30-Day Average Pu and Am Activities at GS01: WY97-01.

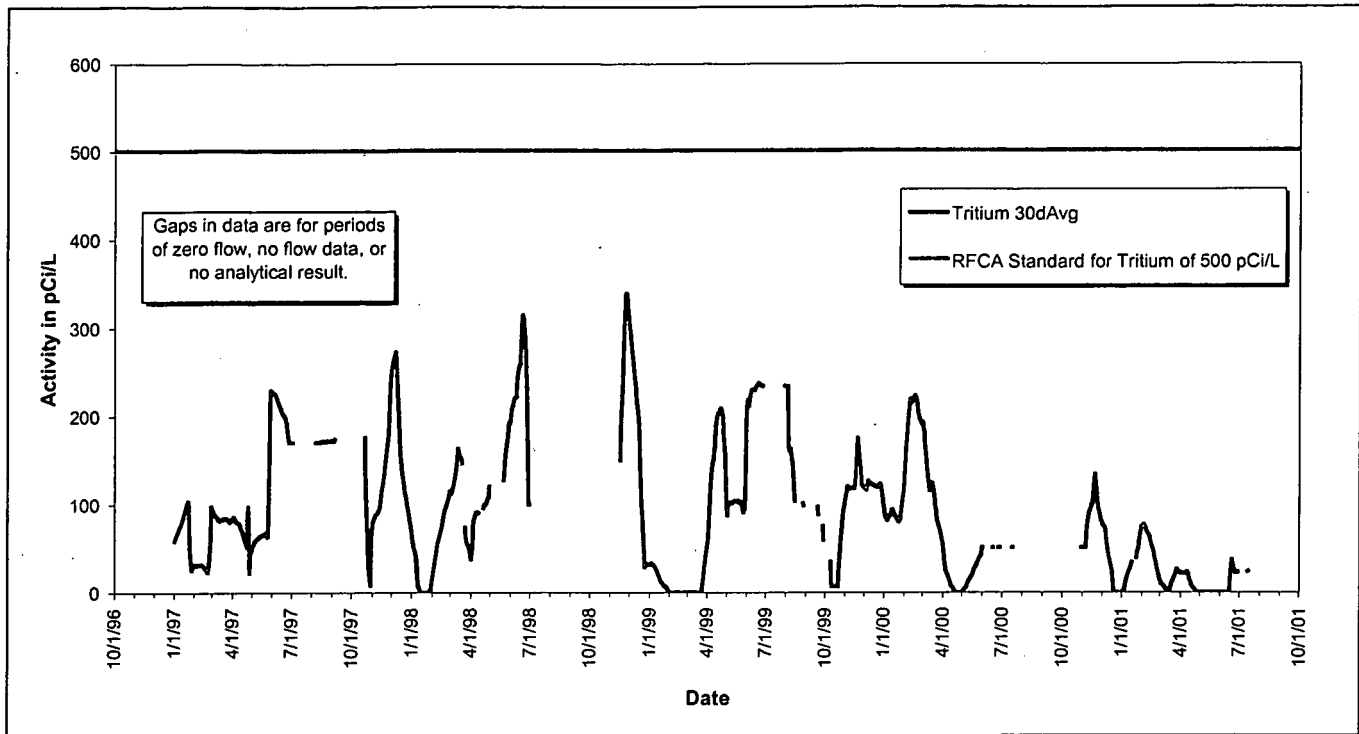


Figure 13-3. Volume-Weighted 30-Day Average Tritium Activities at GS01: WY97-01.

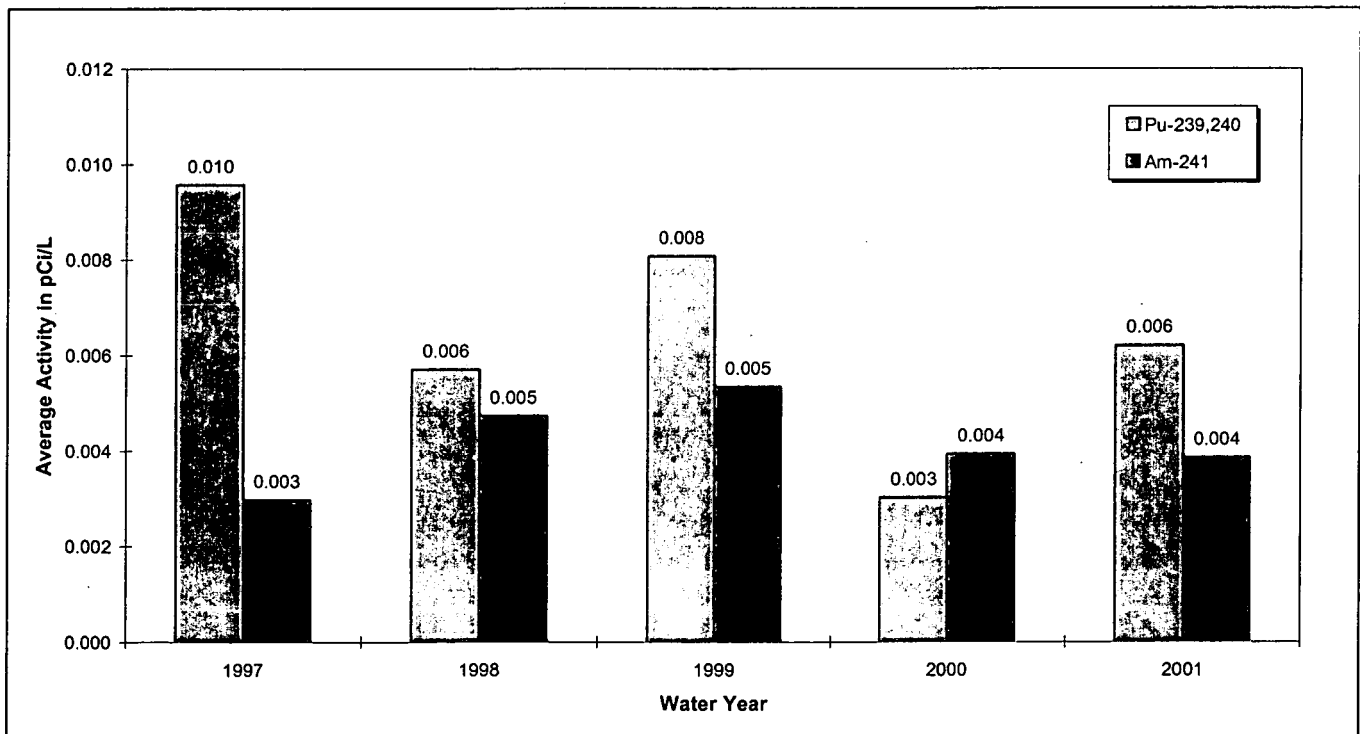


Figure 13-4. Annual Volume-Weighted Average Pu and Am Activities at GS01: WY97-01.

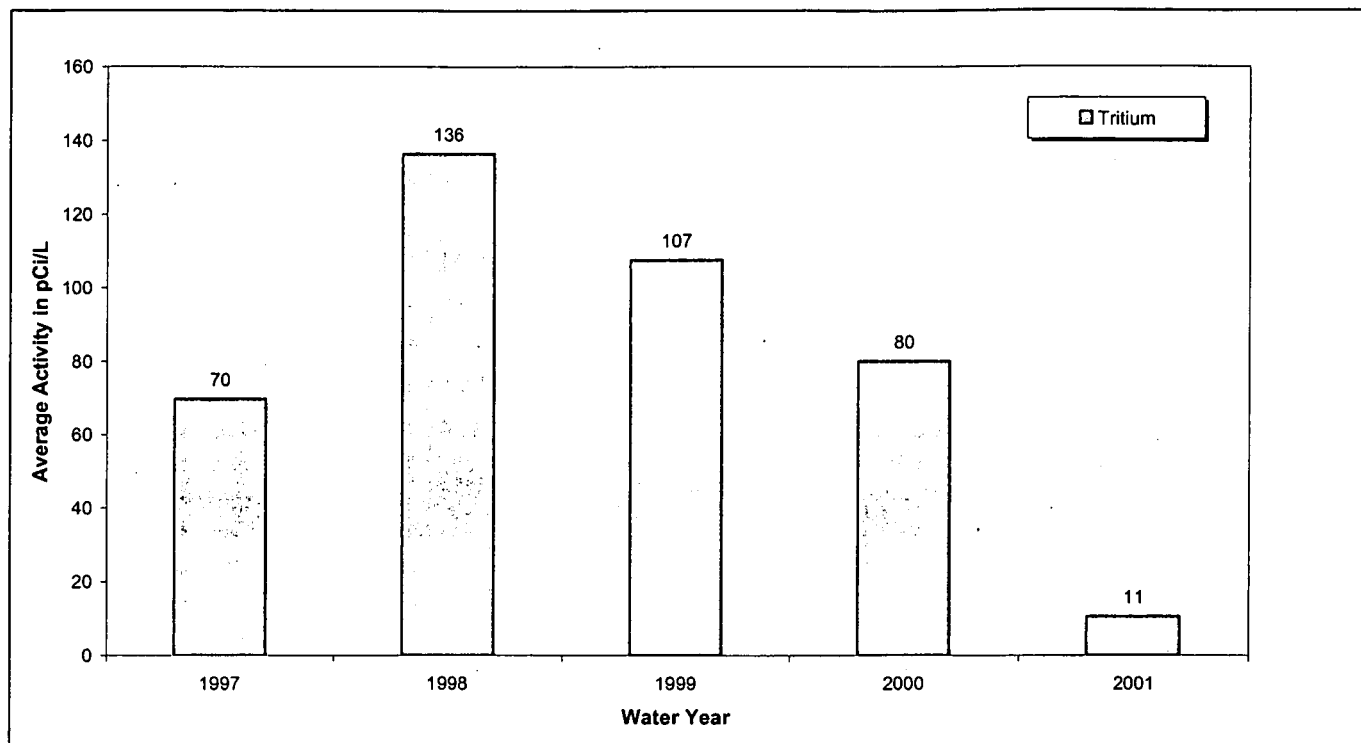
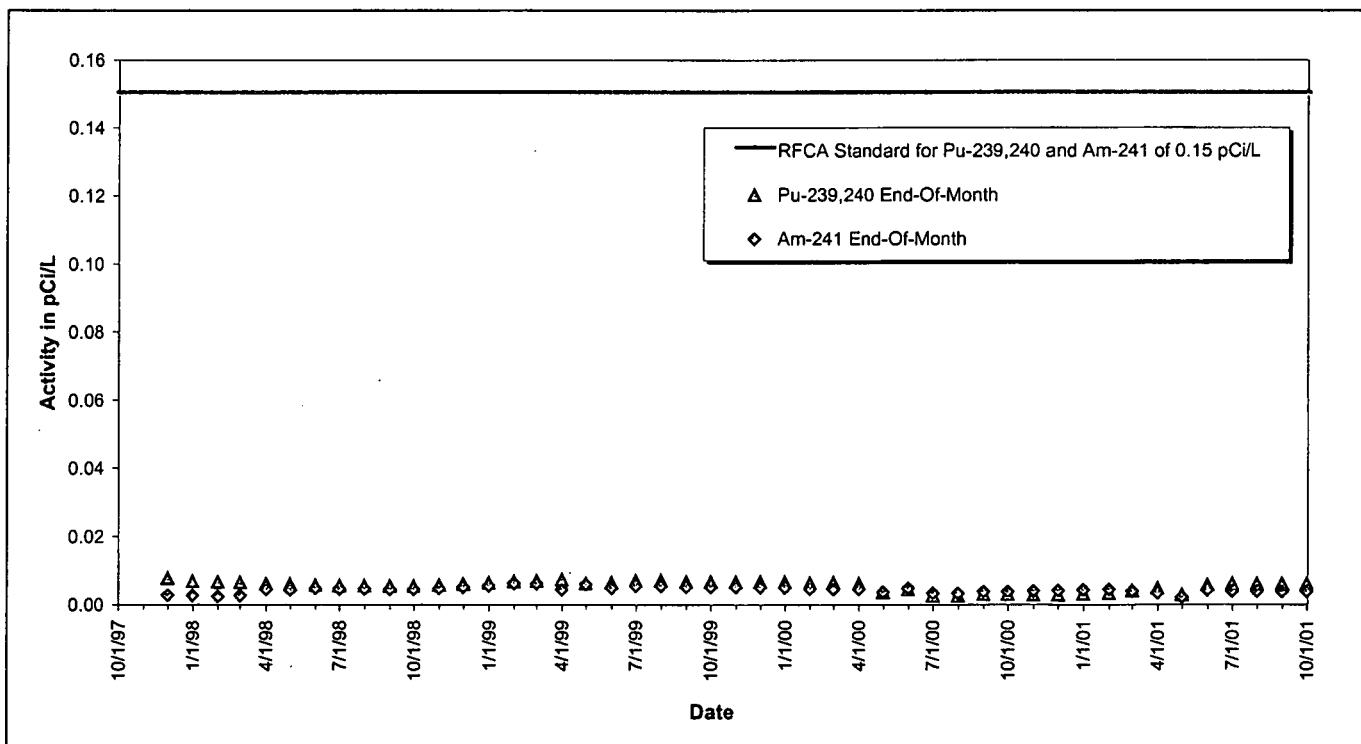


Figure 13-5. Annual Volume-Weighted Average Tritium Activities at GS01: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-6. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS01: WY97-01.

13.3.2 Location GS03

Monitoring location GS03 is located on Walnut Cr. at Indiana Street. Figure 3-14 shows the drainage area for GS03. The majority of the IA, Pond A-4, and Pond B-5 contribute flow to GS03.

Table 13-10 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-01) are well below 0.15 pCi/L. The average tritium activities are all well below 500 pCi/L.

Figure 13-7 and Figure 13-8 show no occurrences of reportable 30-day averages.

Figure 13-11 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-10. Annual Volume-Weighted Average Radionuclide Activities at GS03 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,-240	Tritium
1997	0.015	0.030	108
1998	0.009	0.012	167
1999	0.010	0.015	108
2000	0.007	0.005	71
2001	0.005	0.009	20
Total (WY97-01)	0.010	0.015	110

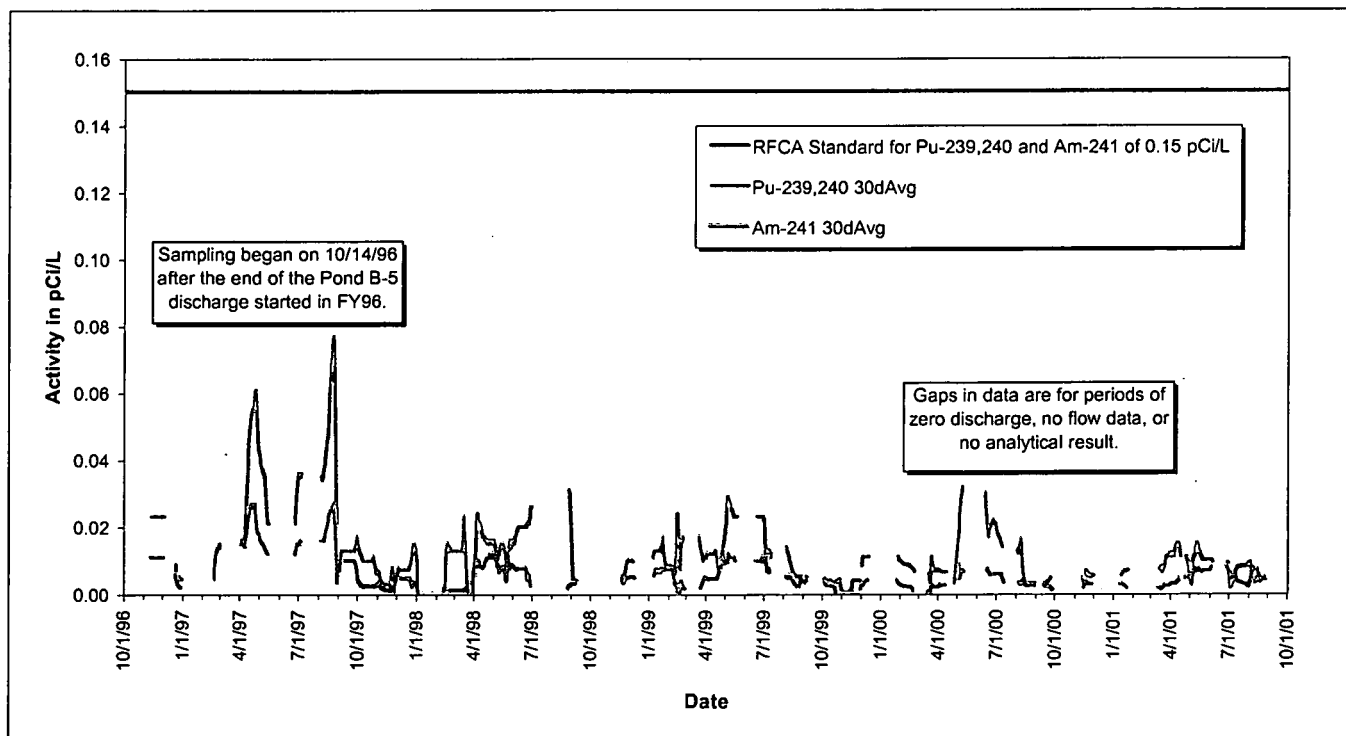


Figure 13-7. Volume-Weighted 30-Day Average Pu and Am Activities at GS03: WY97-01.

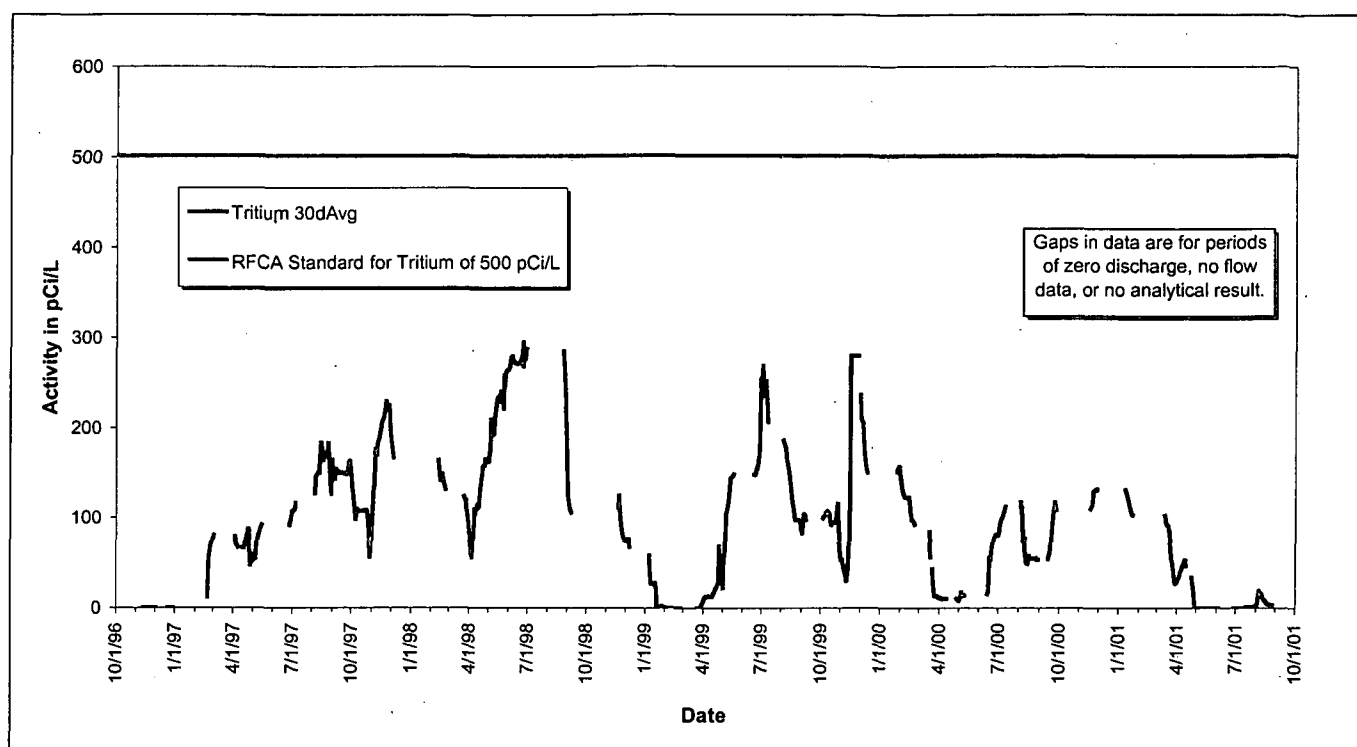


Figure 13-8. Volume-Weighted 30-Day Average Tritium Activities at GS03: WY97-01.

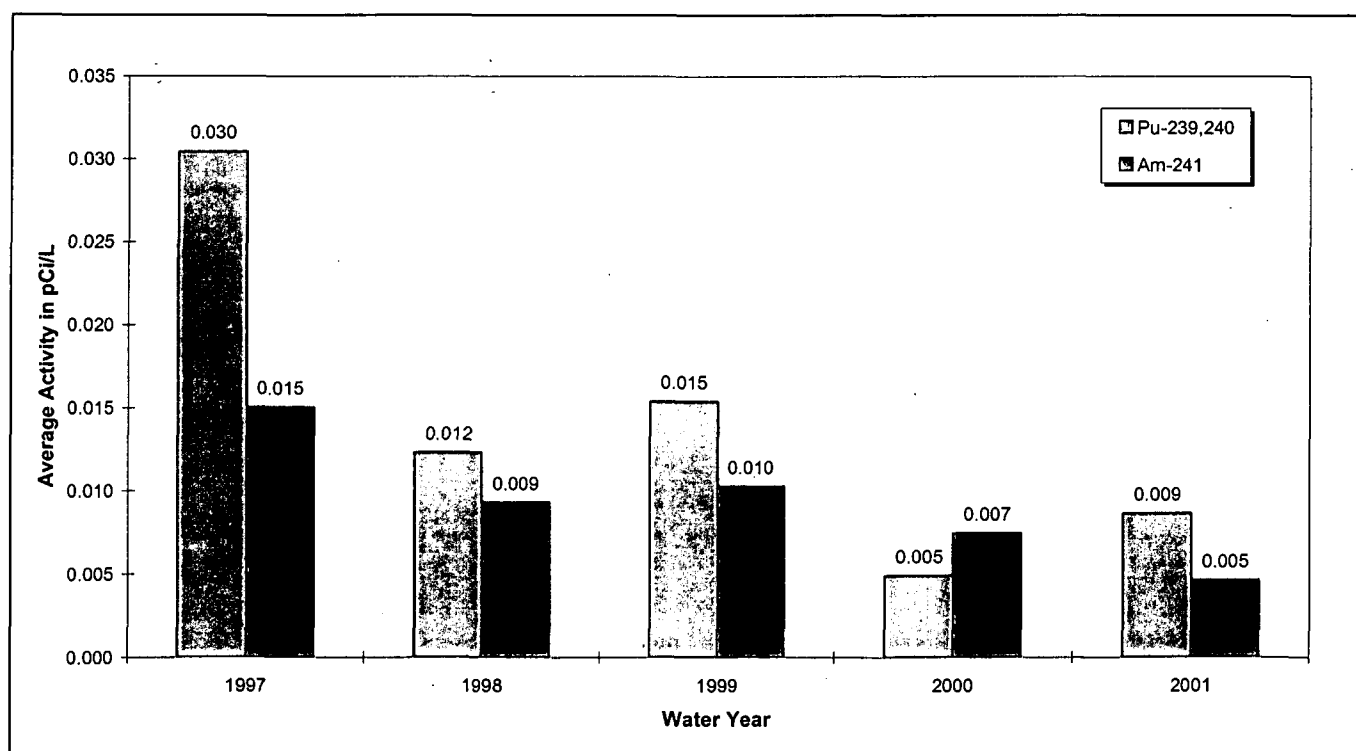


Figure 13-9. Annual Volume-Weighted Average Pu and Am Activities at GS03: WY97-01.

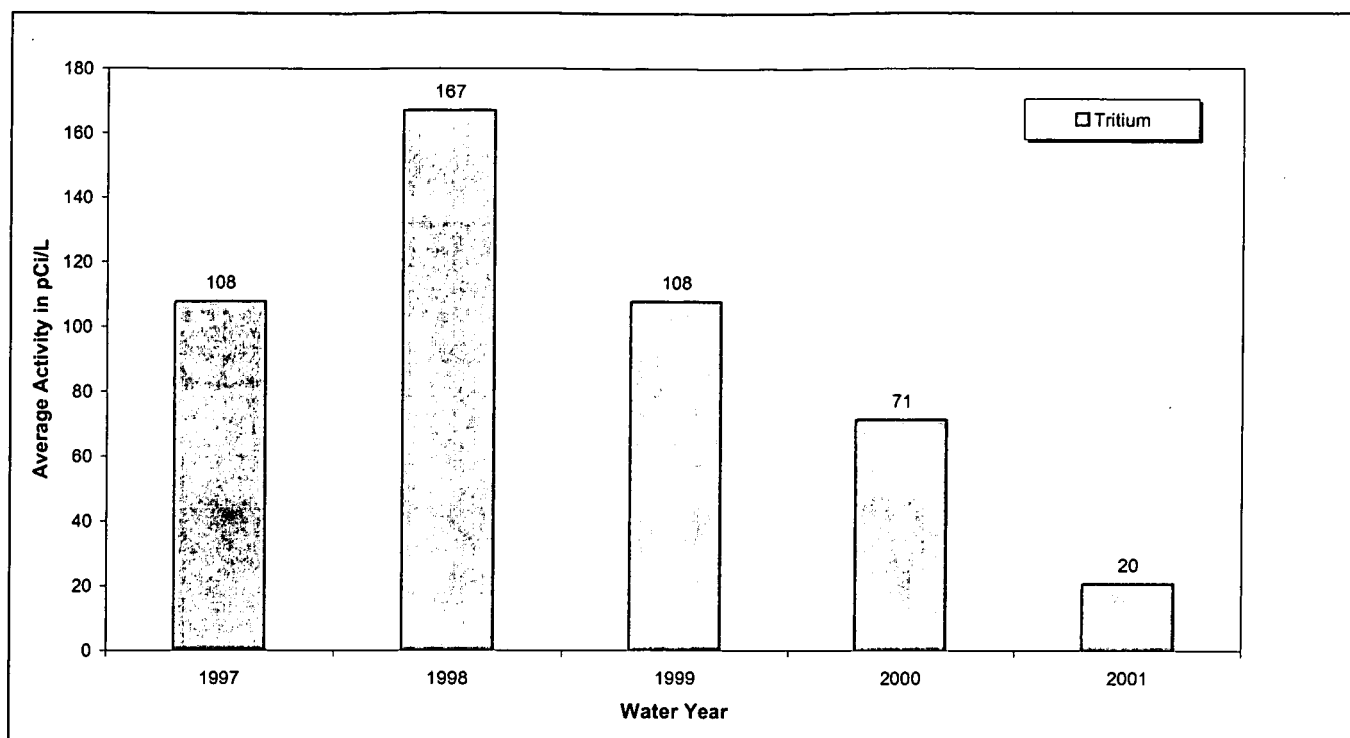
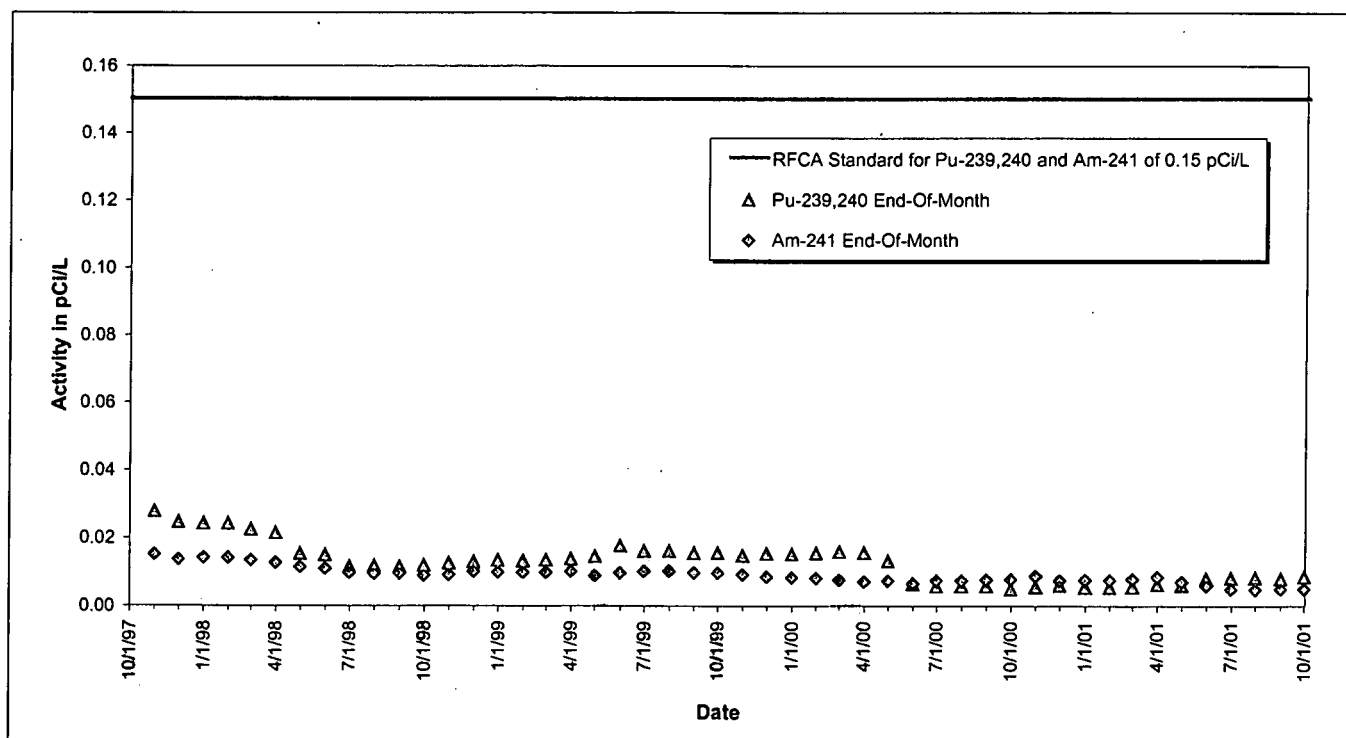


Figure 13-10. Annual Volume-Weighted Average Tritium Activities at GS03: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-11. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS03: WY97-01.

13.3.3 Location GS08

Monitoring location GS08 is located on S. Walnut Cr. at the outlet of Pond B-5. Figure 3-26 shows the drainage area for GS08. The central portion of the IA contributes flow to GS08.

Table 13-11 shows that all of the annual average Pu and Am activities were below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-01) are well below 0.15 pCi/L. The average uranium activities are all well below 10 pCi/L.

Figure 13-12 and Figure 13-13 show no occurrences of reportable 30-day averages. However, between 9/14/00 and 11/24/00 five values of 0.15 pCi/L Pu were calculated. Although not required to perform a source evaluation, the Site did produce a report. A summary of the extensive investigation is given in Section 6 of the Automated Surface-Water Monitoring Report: Water Years 1997-2000.

Figure 13-16 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-11. Annual Volume-Weighted Average Radionuclide Activities at GS08 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,-240	Total Uranium
1997	0.007	0.006	1.740
1998	0.007	0.008	2.263
1999	0.020	0.061	1.451
2000	0.025	0.041	1.002
2001	0.005	0.007	1.265
Total (WY97-01)	0.015	0.029	1.415

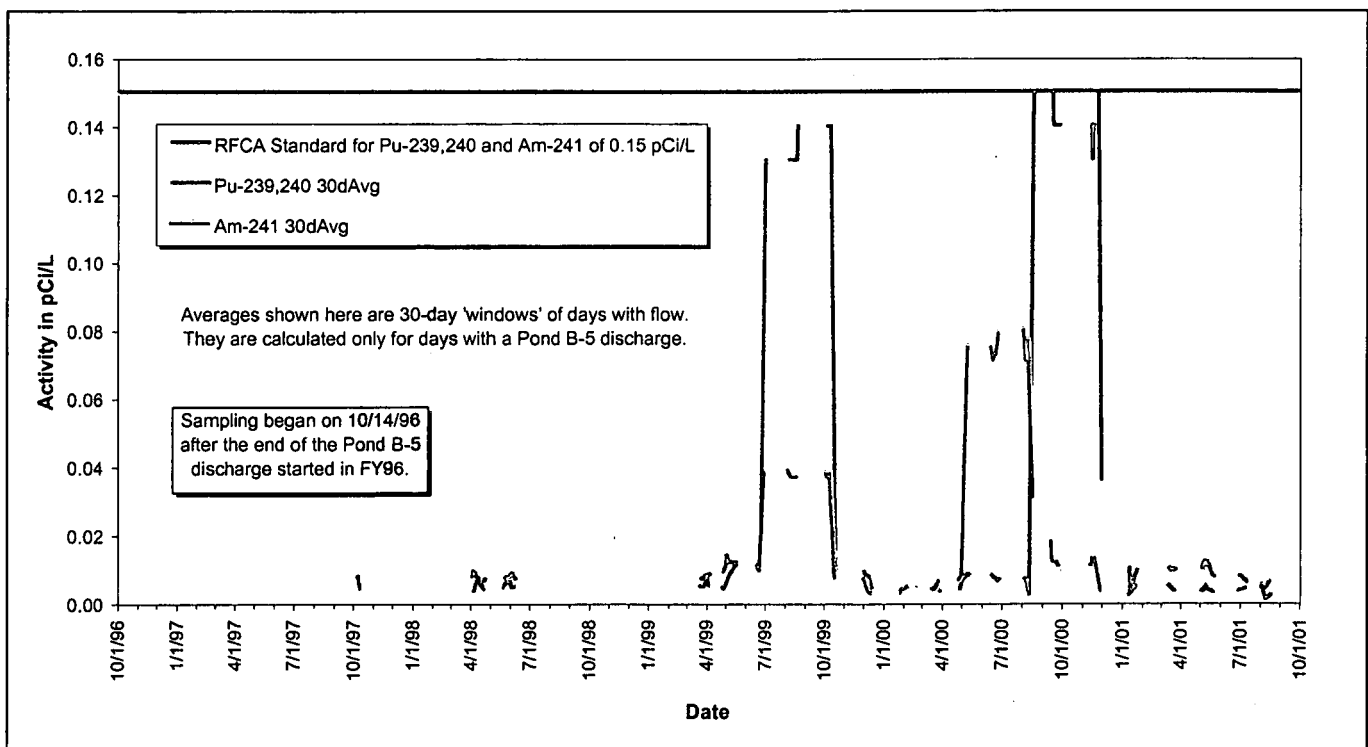


Figure 13-12. Volume-Weighted 30-Day Average Pu and Am Activities at GS08: WY97-01.

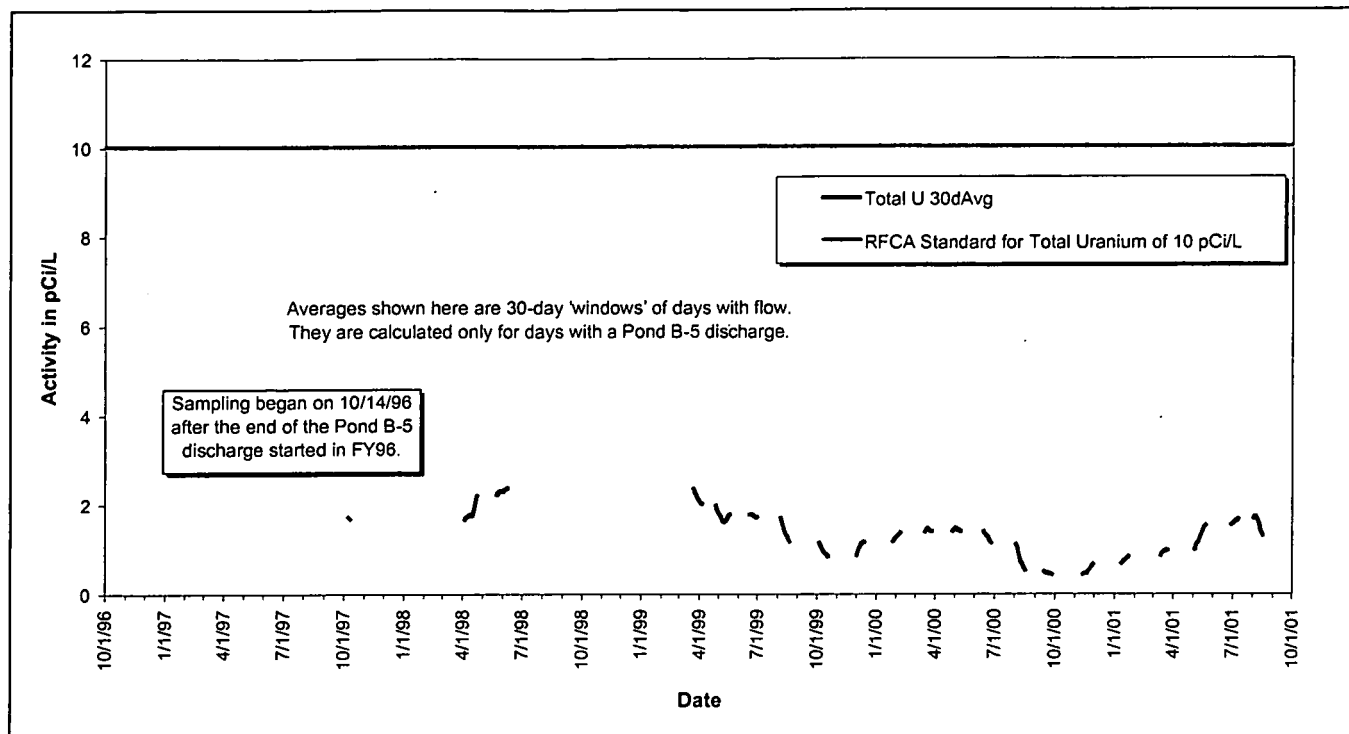


Figure 13-13. Volume-Weighted 30-Day Average Total Uranium Activities at GS08: WY97-01.

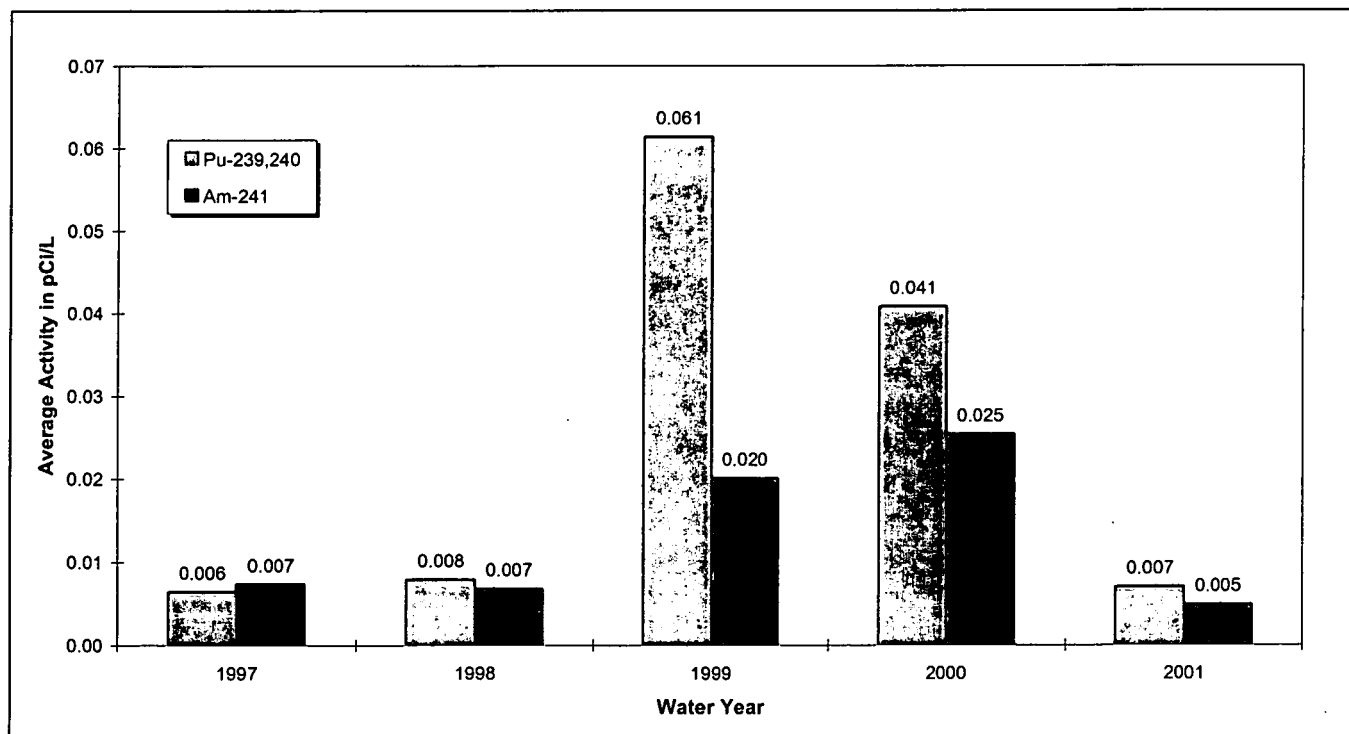


Figure 13-14. Annual Volume-Weighted Average Pu and Am Activities at GS08: WY97-01.

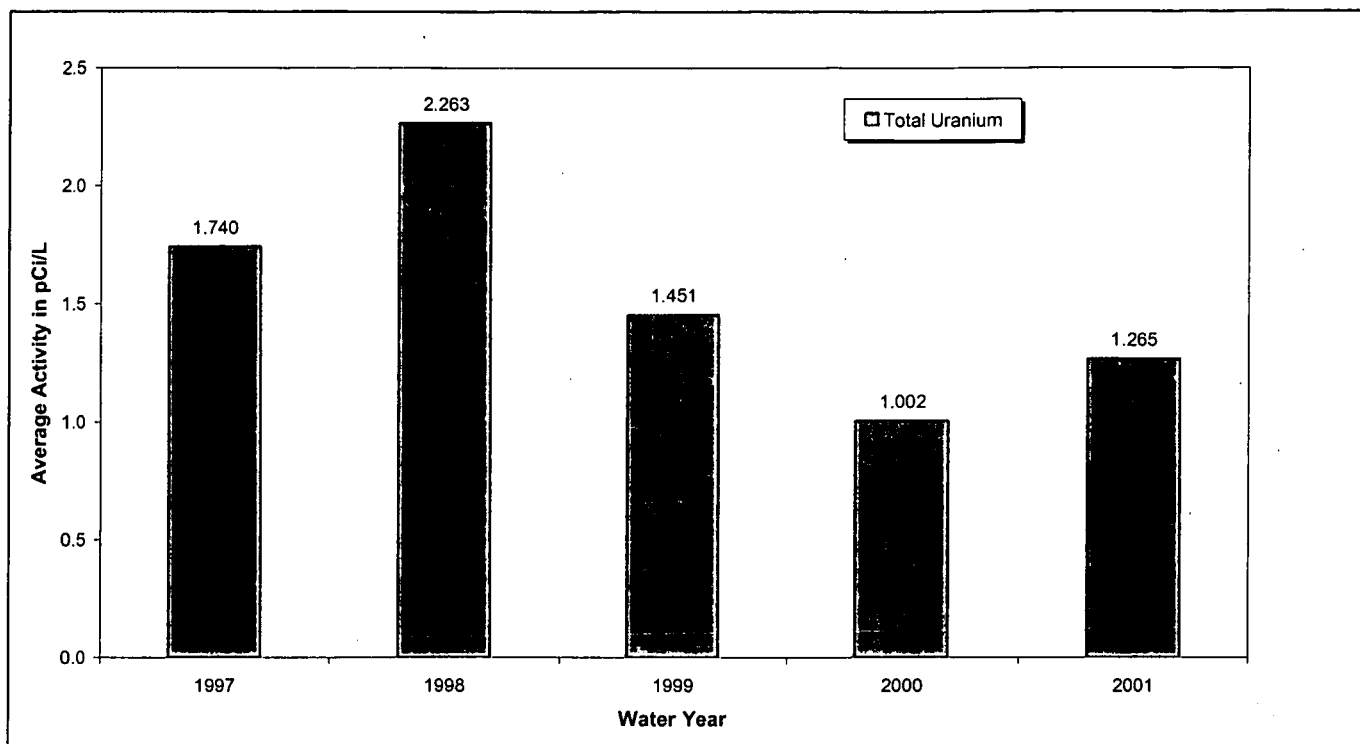
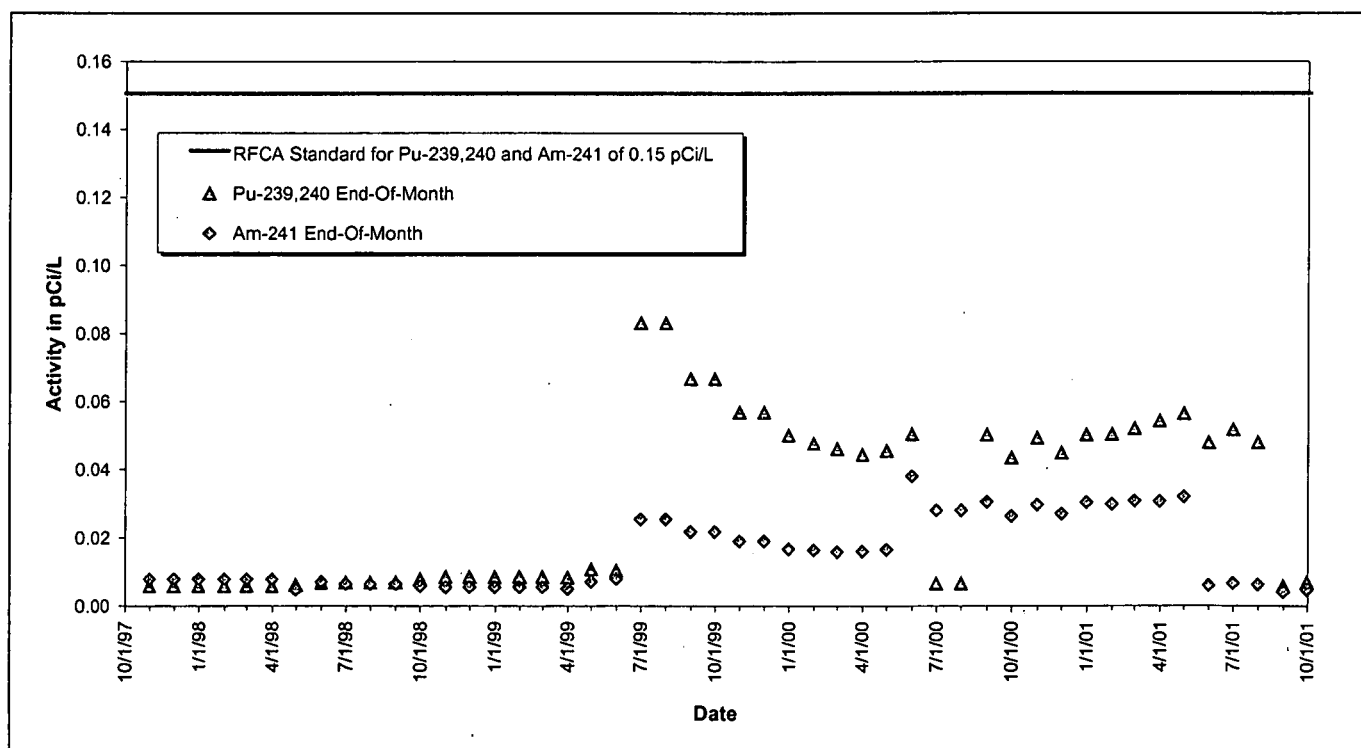


Figure 13-15. Annual Volume-Weighted Average Total Uranium Activities at GS08: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-16. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS08: WY97-01.

Mean daily water-quality parameter data are plotted in Figure 13-17 through Figure 13-24 along with the mean daily flow rate. Figure 13-17 and Figure 13-18 show the expected annual variation in water temperature.

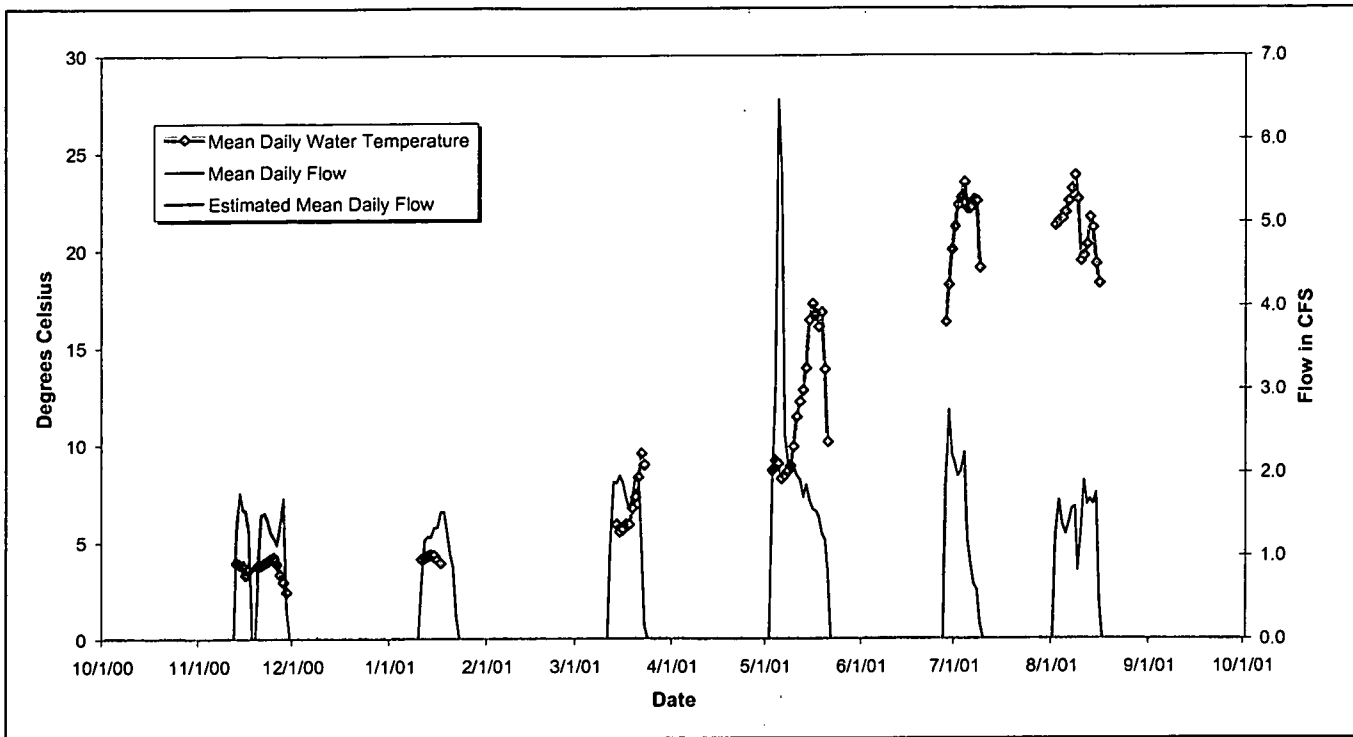


Figure 13-17. Mean Daily Water Temperature at GS08: Water Year 2001.

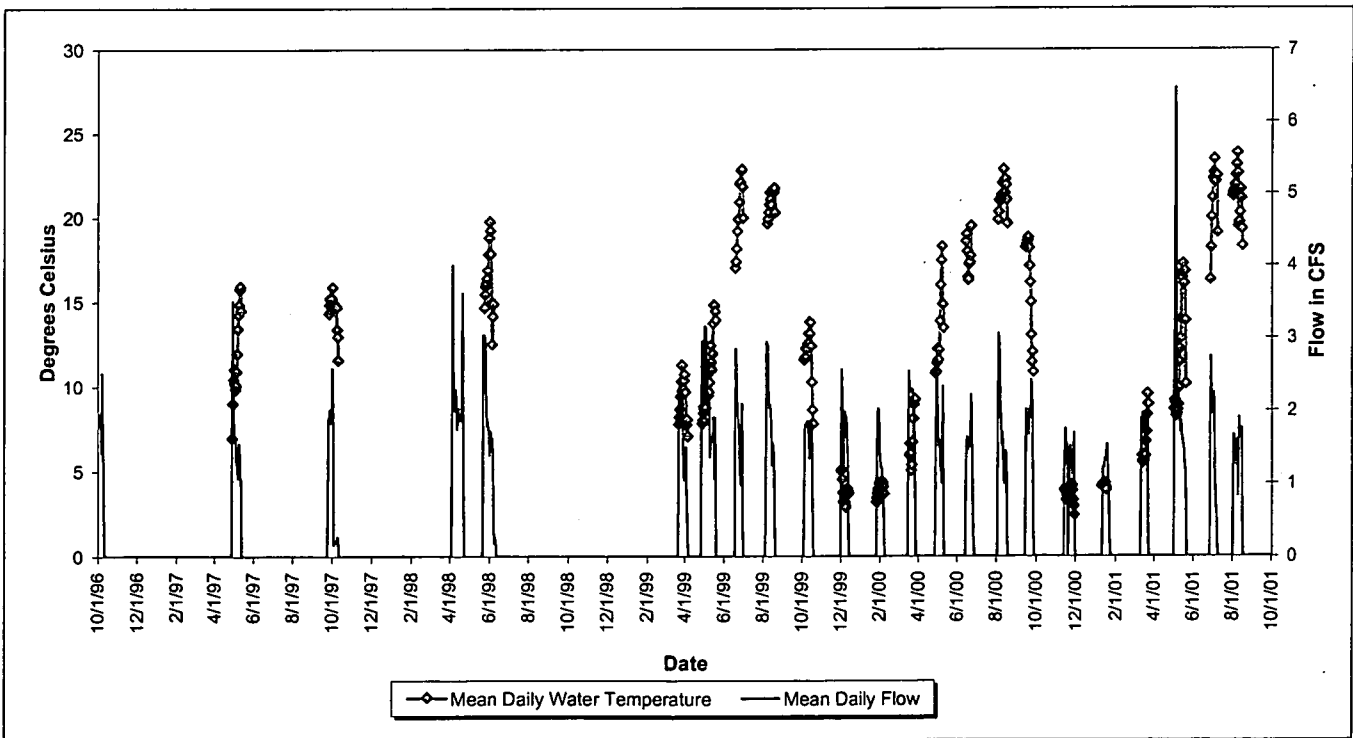


Figure 13-18. Mean Daily Water Temperature at GS08: Water Years 1997-2001.

Figure 13-19 and Figure 13-20 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations.

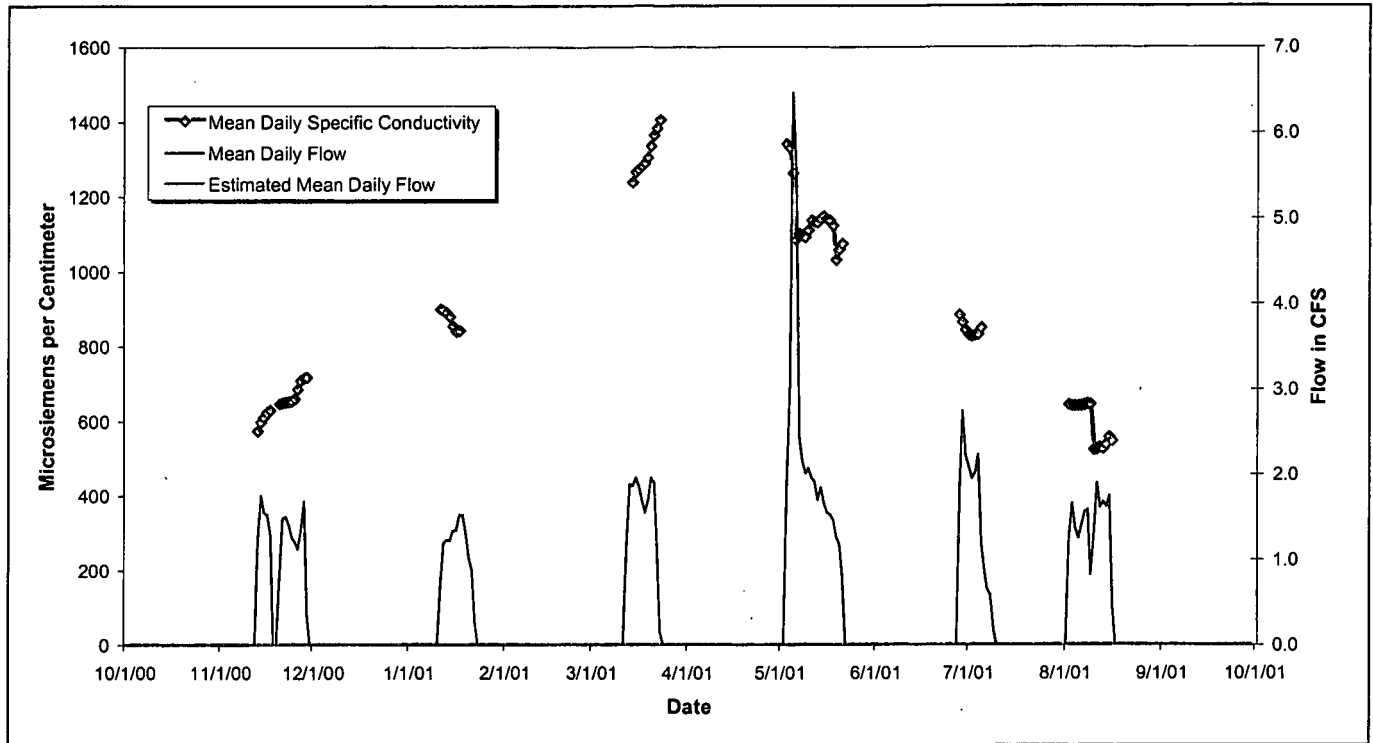


Figure 13-19. Mean Daily Specific Conductivity at GS08: Water Year 2001.

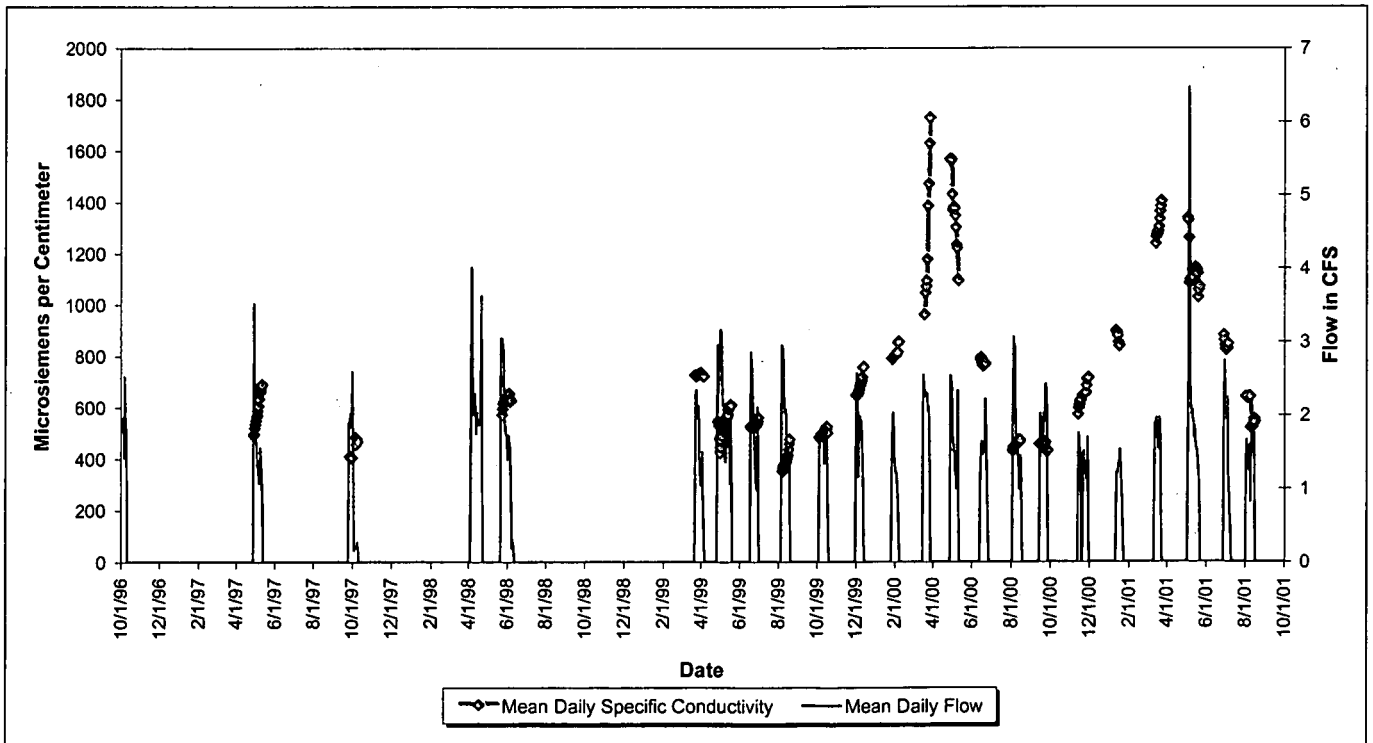


Figure 13-20. Mean Daily Specific Conductivity at GS08: Water Years 1997-2001.

Figure 13-21 and Figure 13-22 show the mean daily pH varying between 7.4 and 10.7. The somewhat higher pH values are due to algae growth affecting the CO₂ buffering capacity.

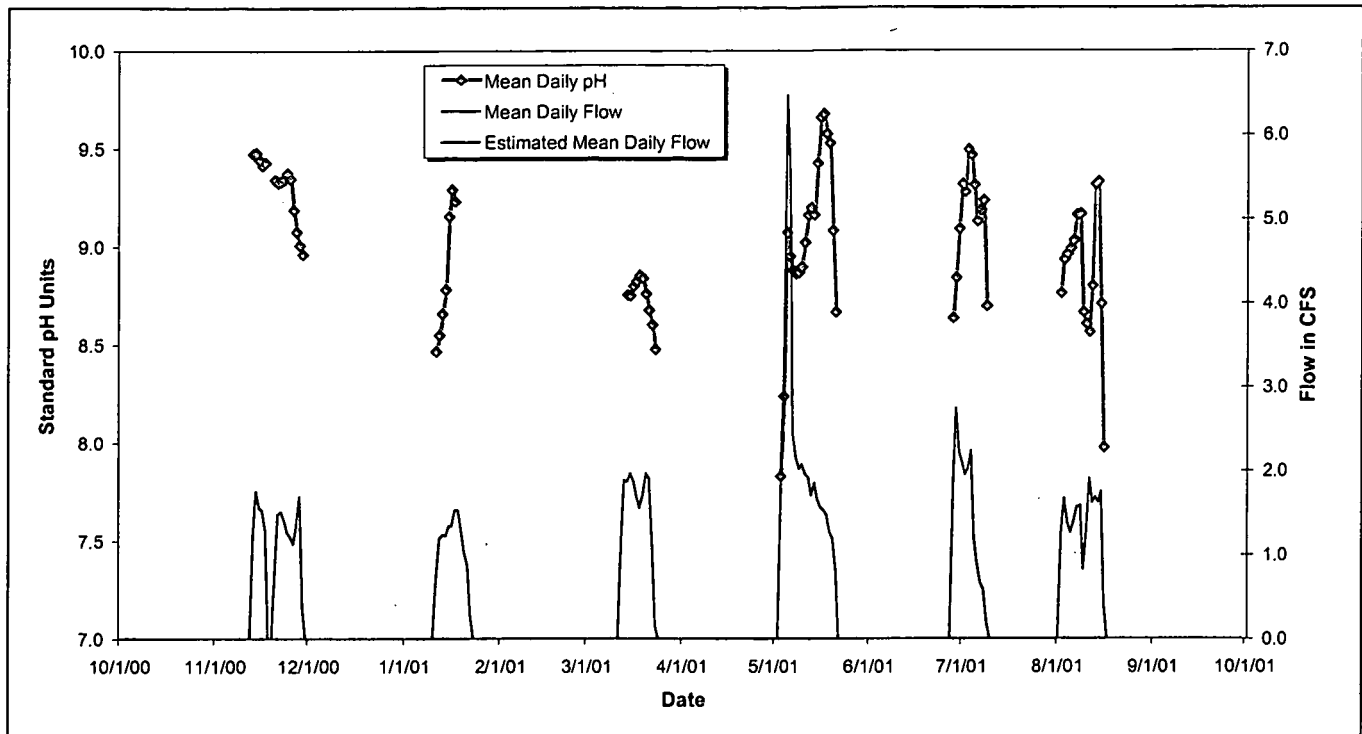


Figure 13-21. Mean Daily pH at GS08: Water Year 2001.

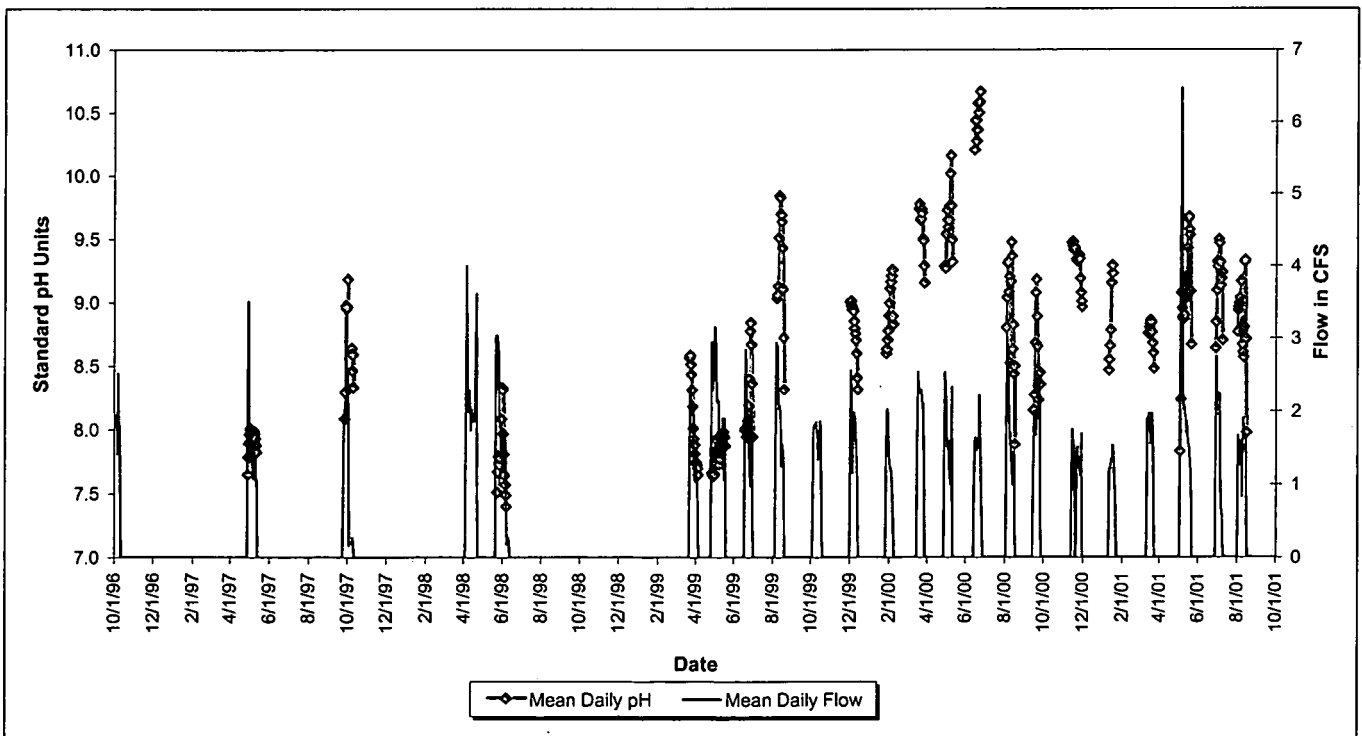


Figure 13-22. Mean Daily pH at GS08: Water Years 1997-2001.

Finally, Figure 13-23 and Figure 13-24 show variable turbidity measurements. These variations are likely the result of biological growth in the pond and turbidity from recent pond inflows.

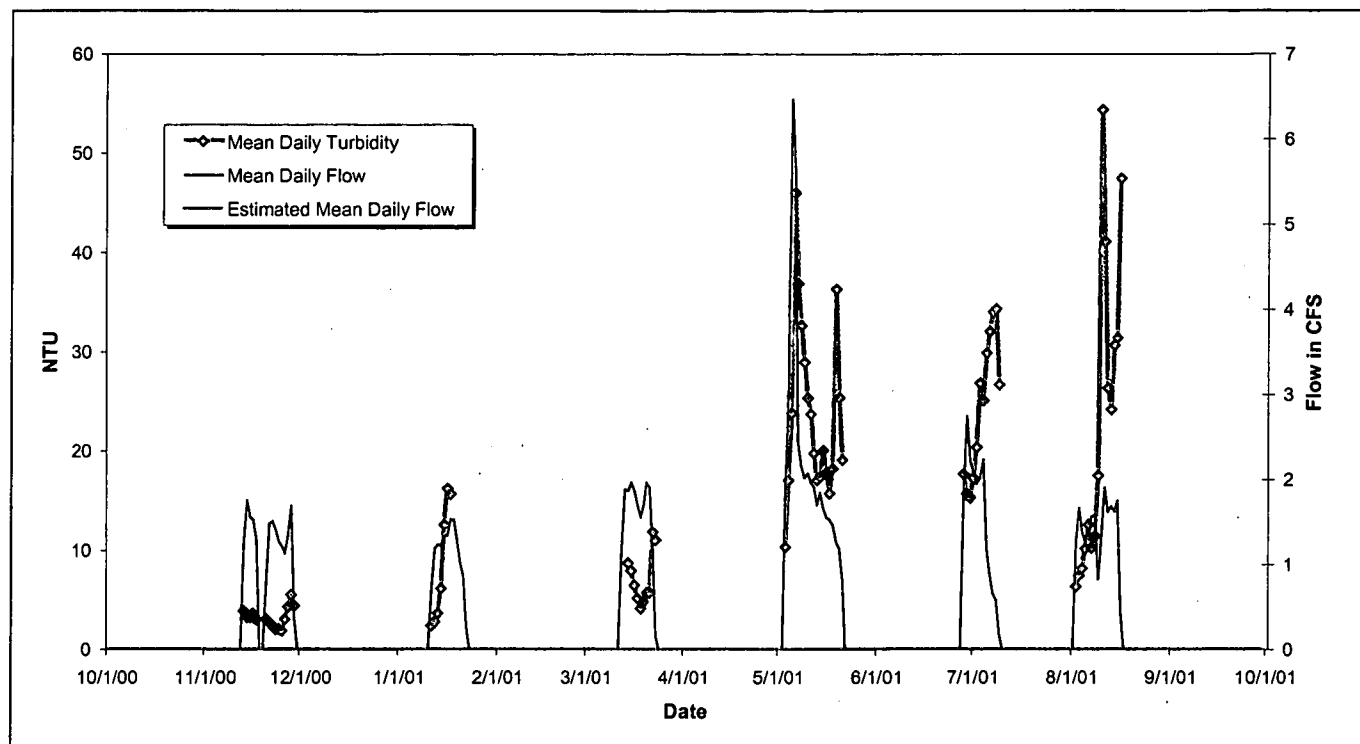


Figure 13-23. Mean Daily Turbidity at GS08: Water Year 2001.

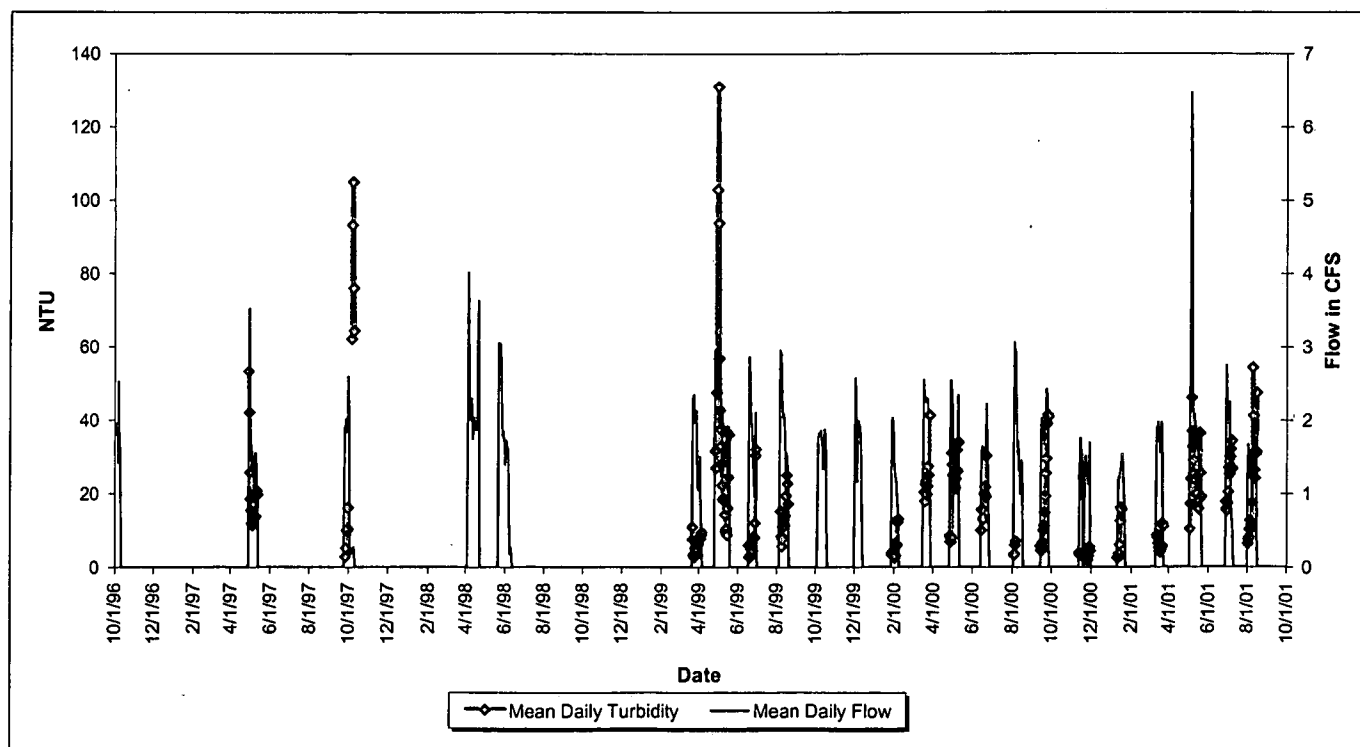


Figure 13-24. Mean Daily Turbidity at GS08: Water Years 1997-2001.

13.3.4 Location GS11

Monitoring location GS11 is located on N. Walnut Cr. at the outlet of Pond A-4. Figure 3-32 shows the drainage area for GS11. The northern portion of the IA contributes flow to GS11.

Table 13-12 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-01) are well below 0.15 pCi/L. The average uranium activities are all well below 10 pCi/L.

Figure 13-25 and Figure 13-26 show no occurrences of reportable 30-day averages.

Figure 13-29 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-12. Annual Volume-Weighted Average Radionuclide Activities at GS11 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,-240	Total Uranium
1997	0.005	0.009	1.890
1998	0.009	0.004	2.072
1999	0.004	0.006	1.735
2000	0.001	0.029	3.229
2001	0.002	0.002	2.489
Total (WY97-01)	0.006	0.007	2.061

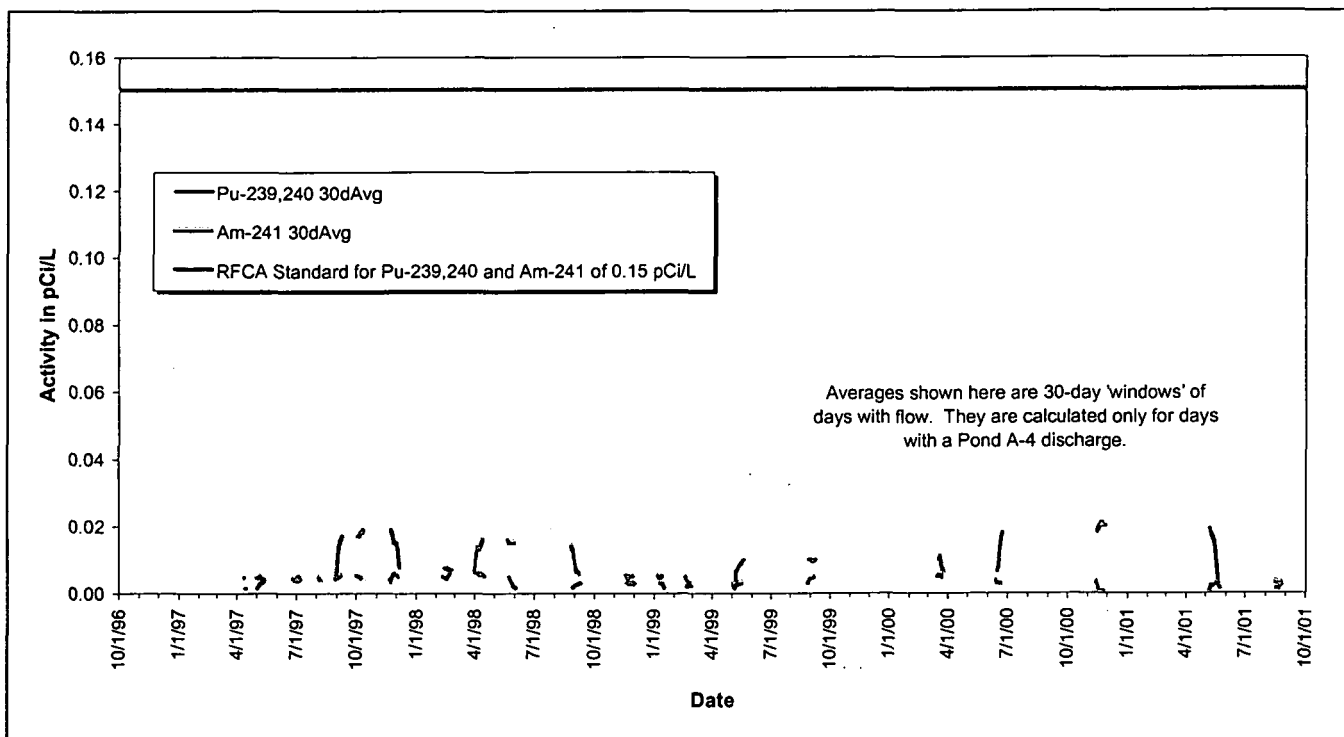


Figure 13-25. Volume-Weighted 30-Day Average Pu and Am Activities at GS11: WY97-01.

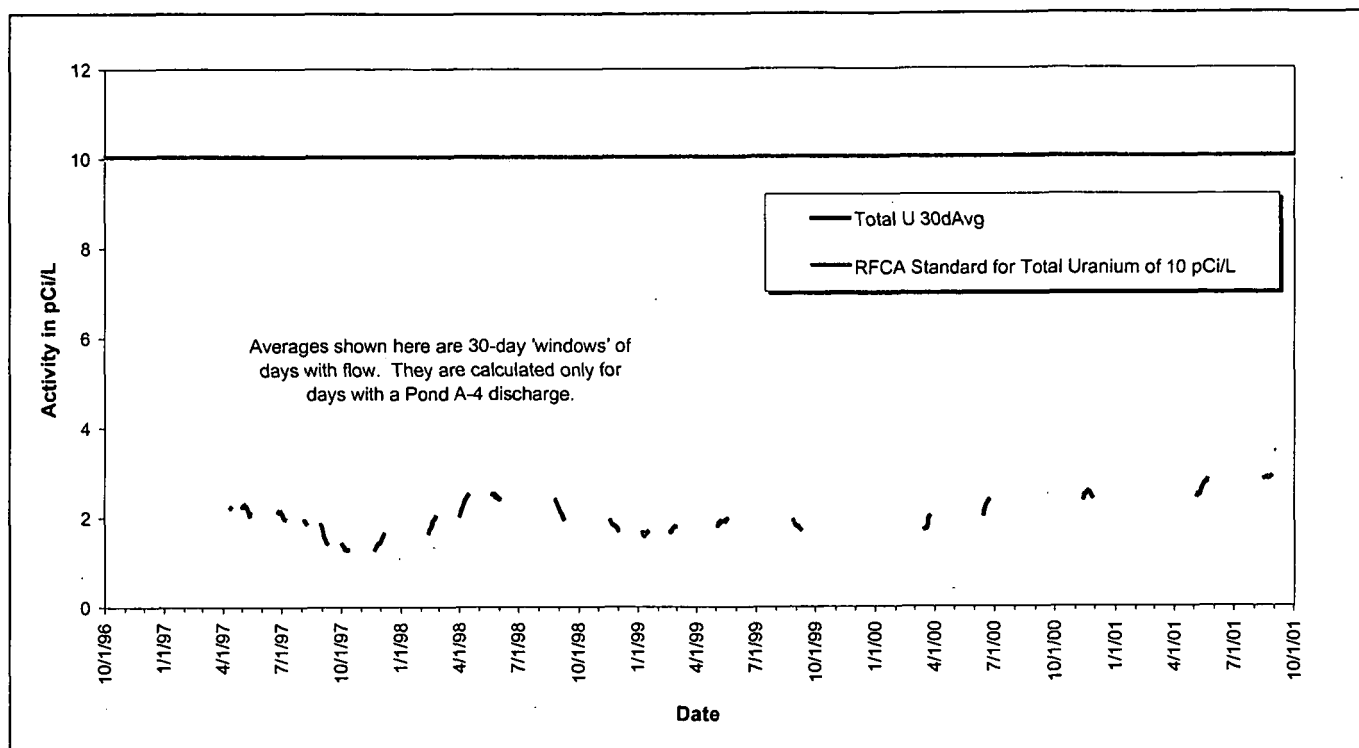


Figure 13-26. Volume-Weighted 30-Day Average Total Uranium Activities at GS11: WY97-01.

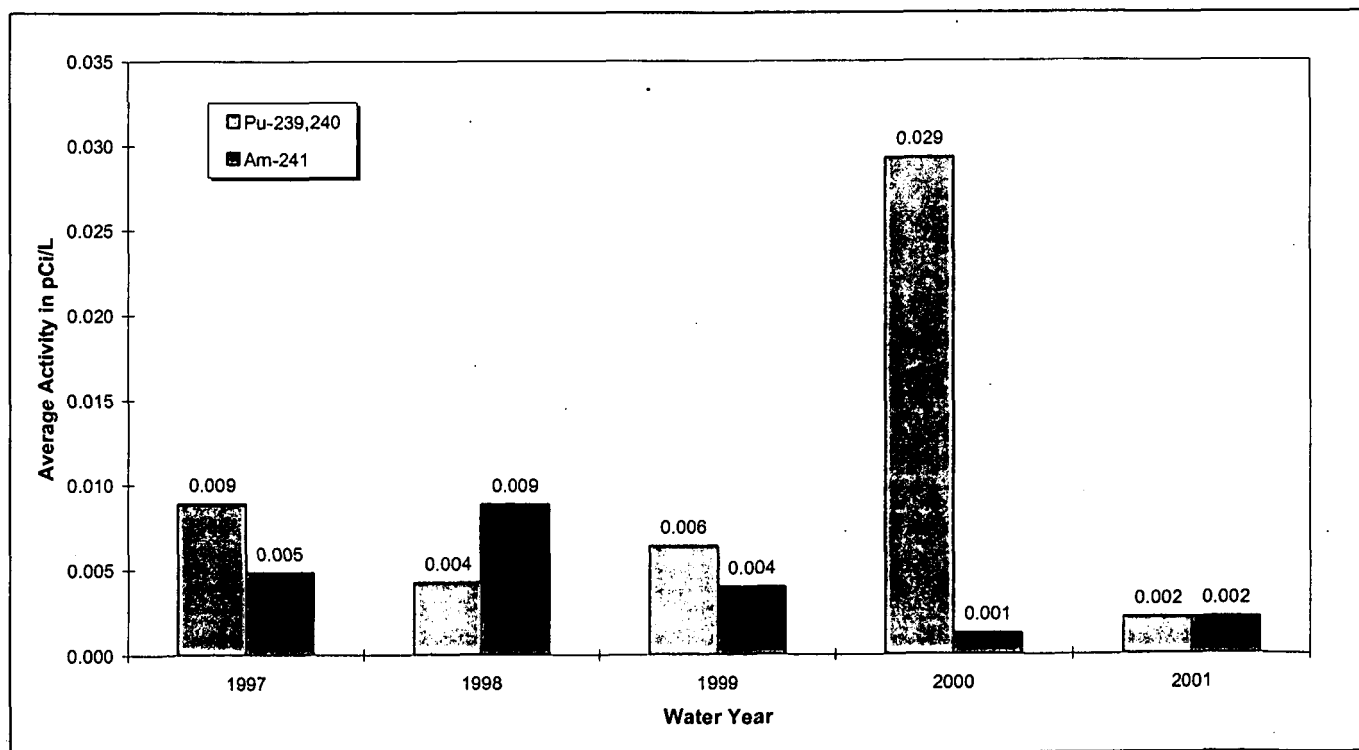


Figure 13-27. Annual Volume-Weighted Average Pu and Am Activities at GS11: WY97-01.

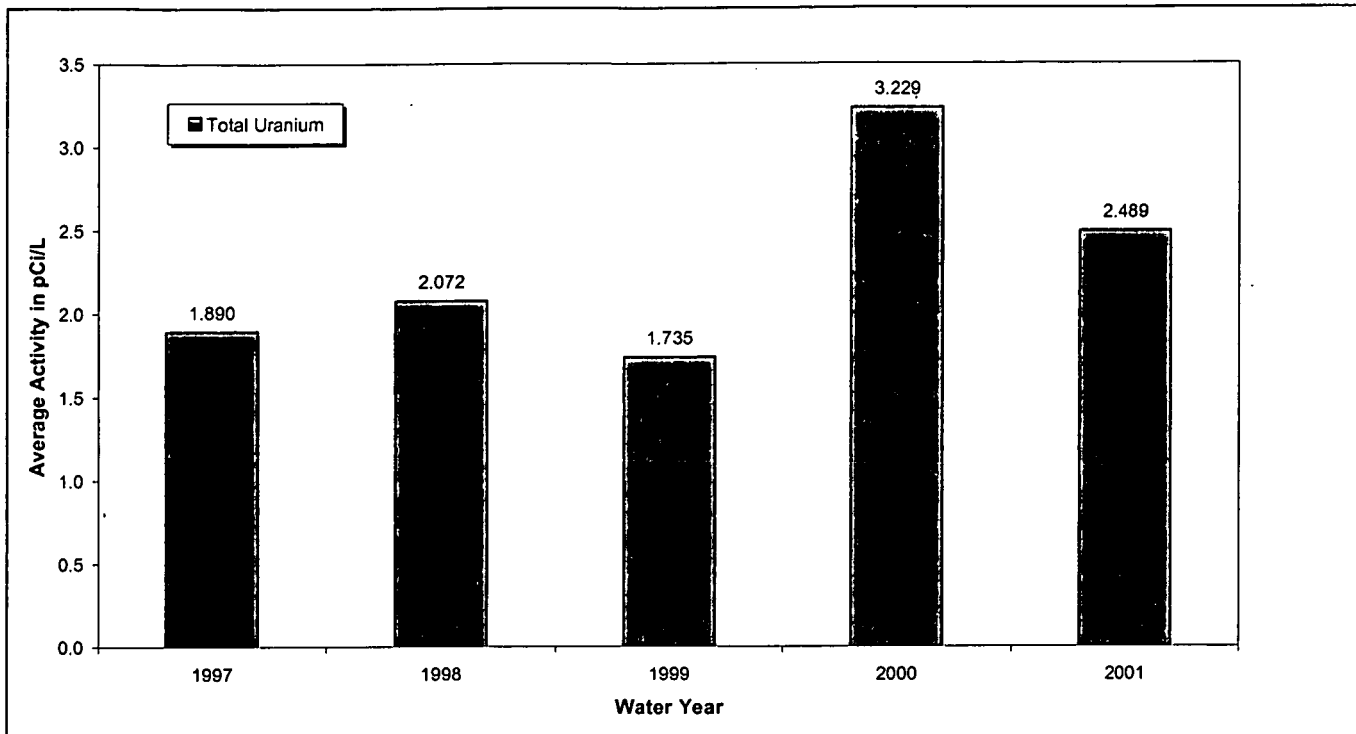
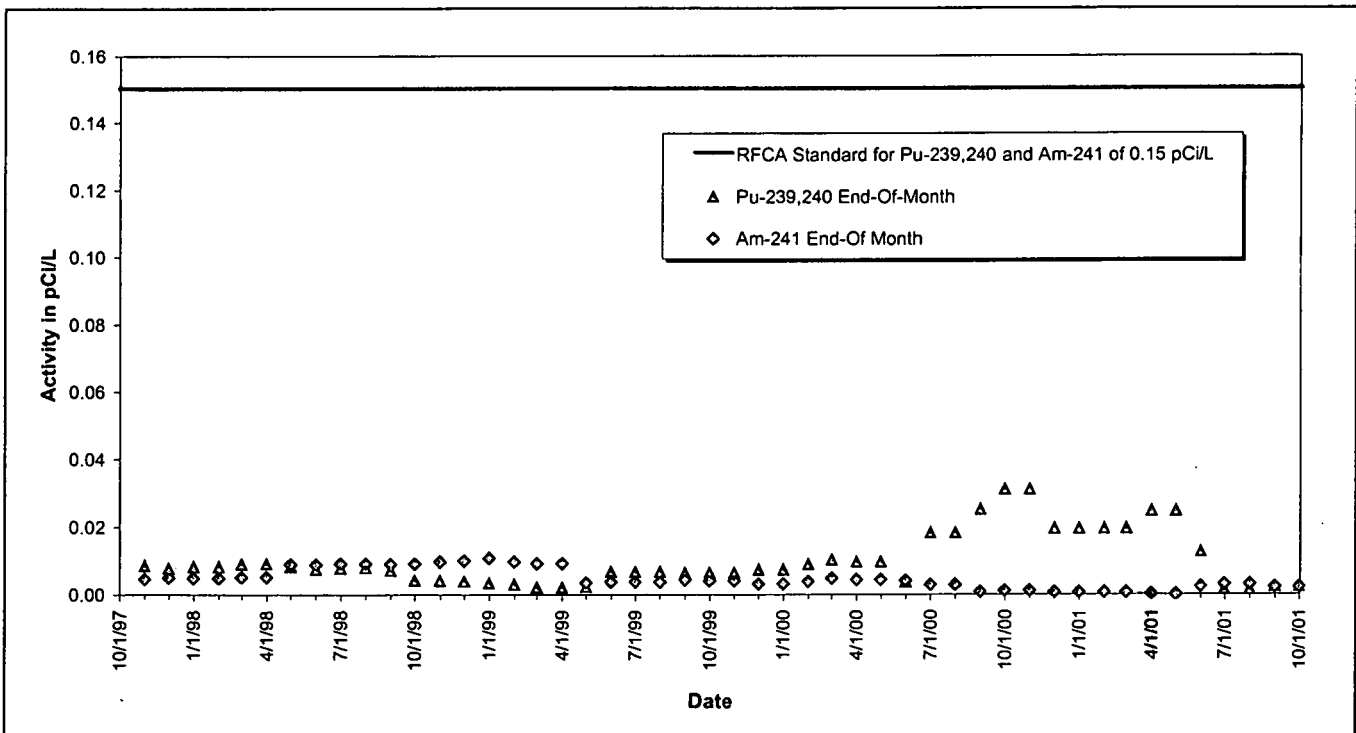


Figure 13-28. Annual Volume-Weighted Average Total Uranium Activities at GS11: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-29. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS11: WY97-01.

Mean daily water-quality parameter data are plotted in Figure 13-30 through Figure 13-37 along with the mean daily flow rate. Figure 13-30 and Figure 13-31 show the expected annual variation in water temperature.

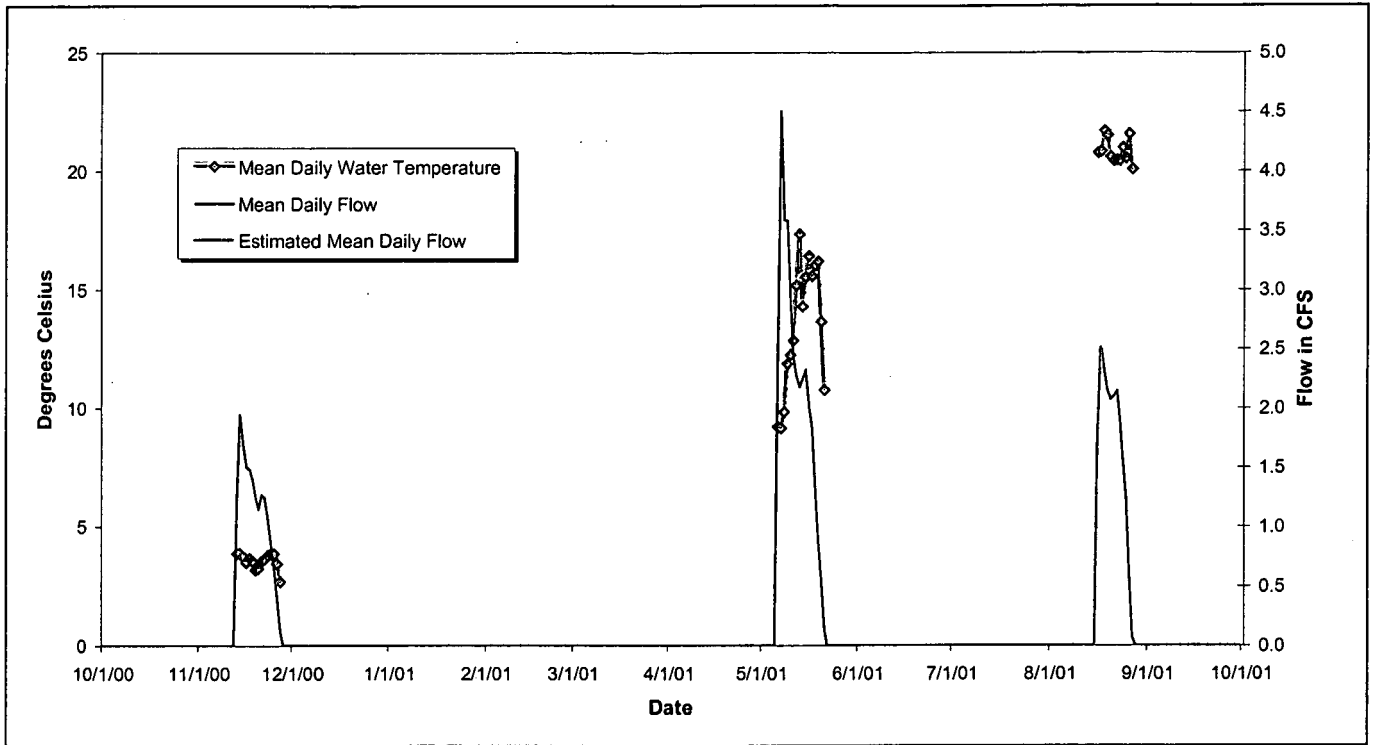


Figure 13-30. Mean Daily Water Temperature at GS11: Water Year 2001.

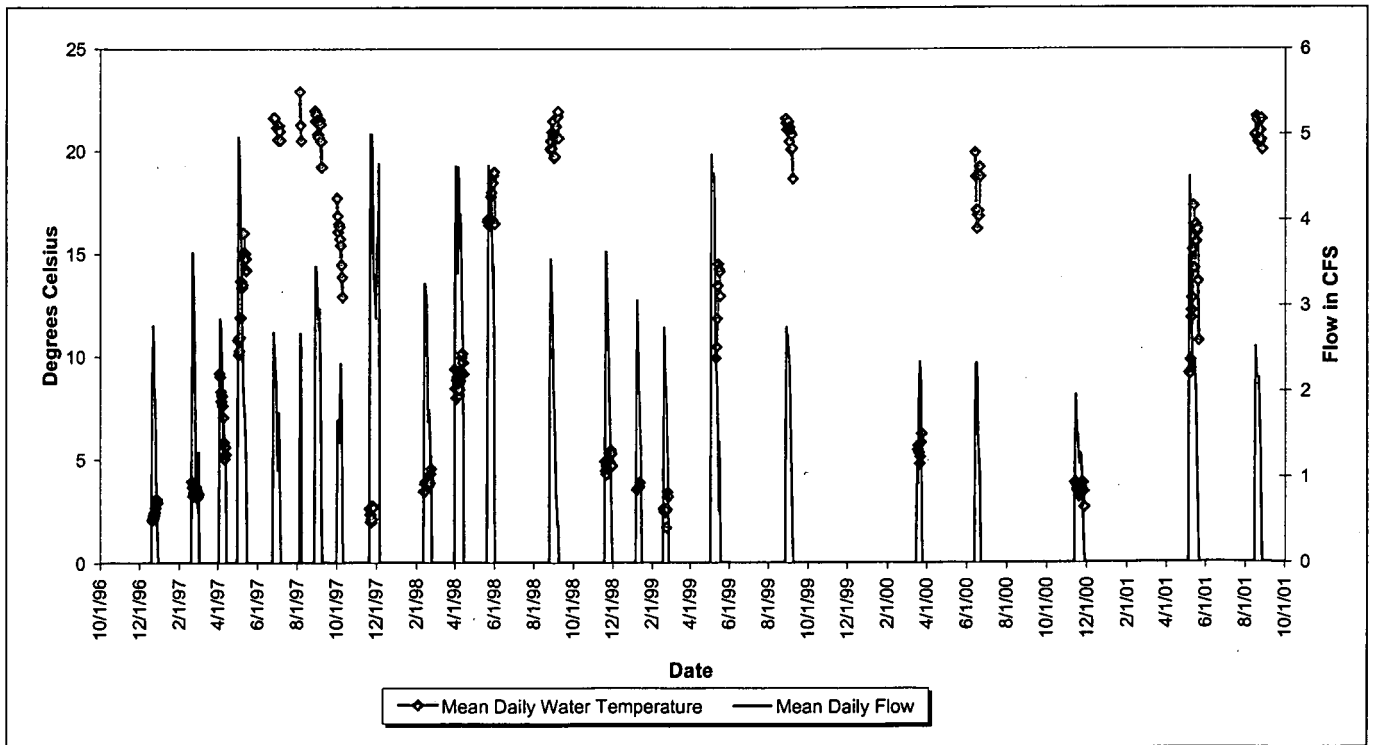


Figure 13-31. Mean Daily Water Temperature at GS11: Water Years 1997-2001.

Figure 13-32 and Figure 13-33 show elevated conductivities, most likely a result of road and walkway deicing operations. The higher May 2001 conductivities are likely caused by runoff that entered A-4 during previous winter months.

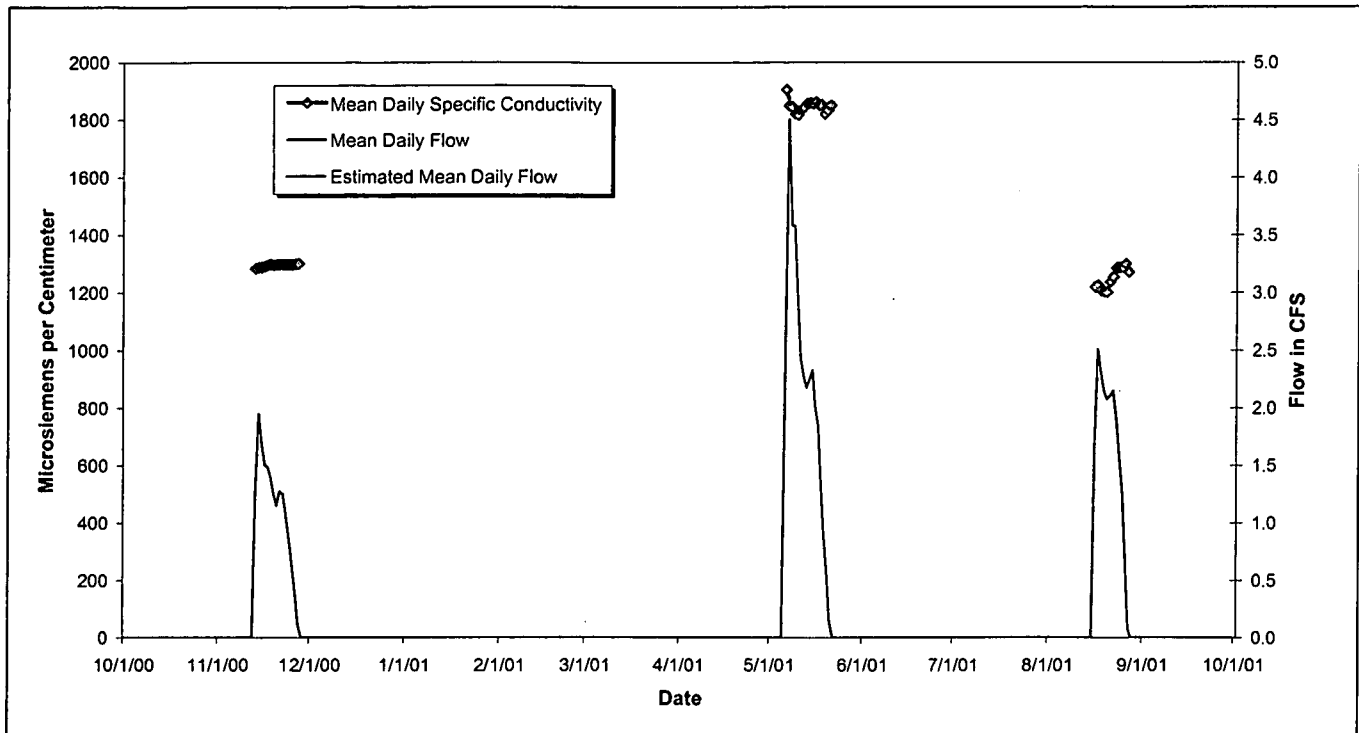


Figure 13-32. Mean Daily Specific Conductivity at GS11: Water Year 2001.

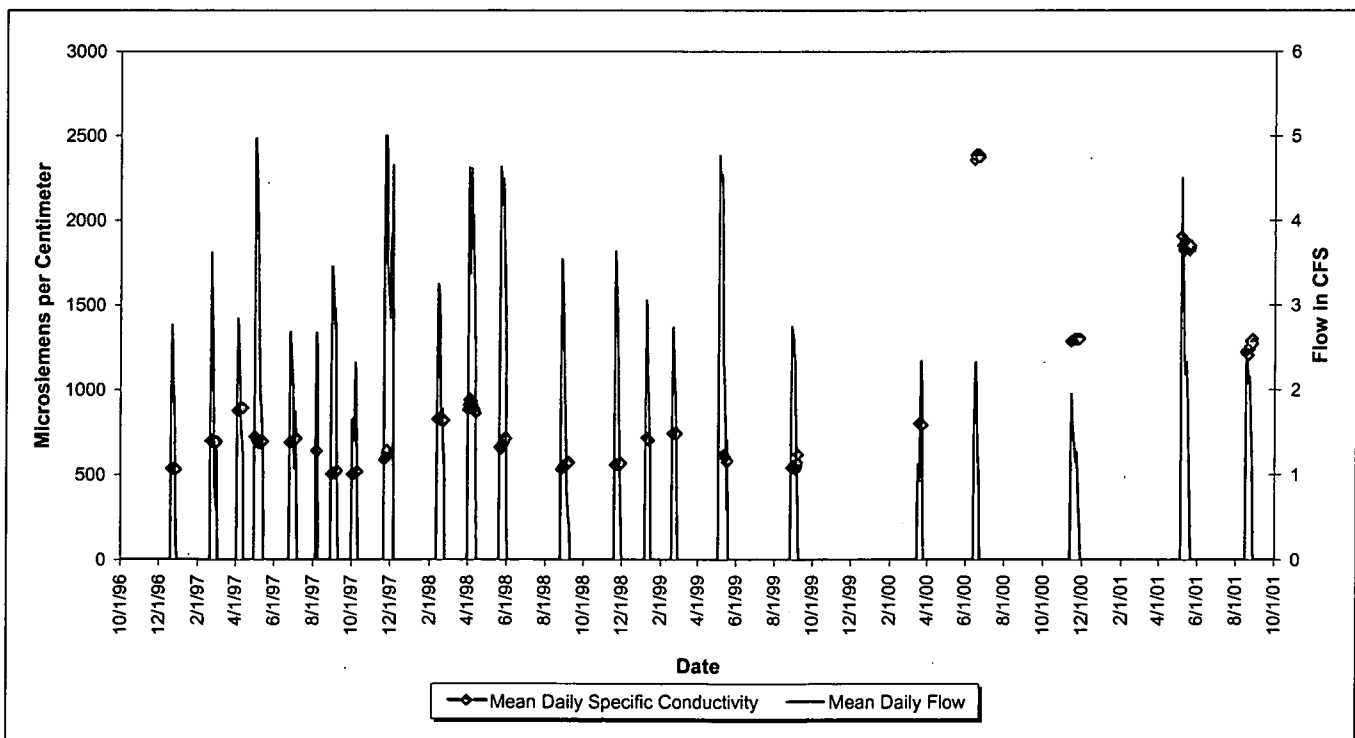


Figure 13-33. Mean Daily Specific Conductivity at GS11: Water Years 1997-2001.

Figure 13-34 and Figure 13-35 show the mean daily pH varying between 7.4 and 10.4. The somewhat higher pH values are due to algae growth affecting the CO₂ buffering capacity.

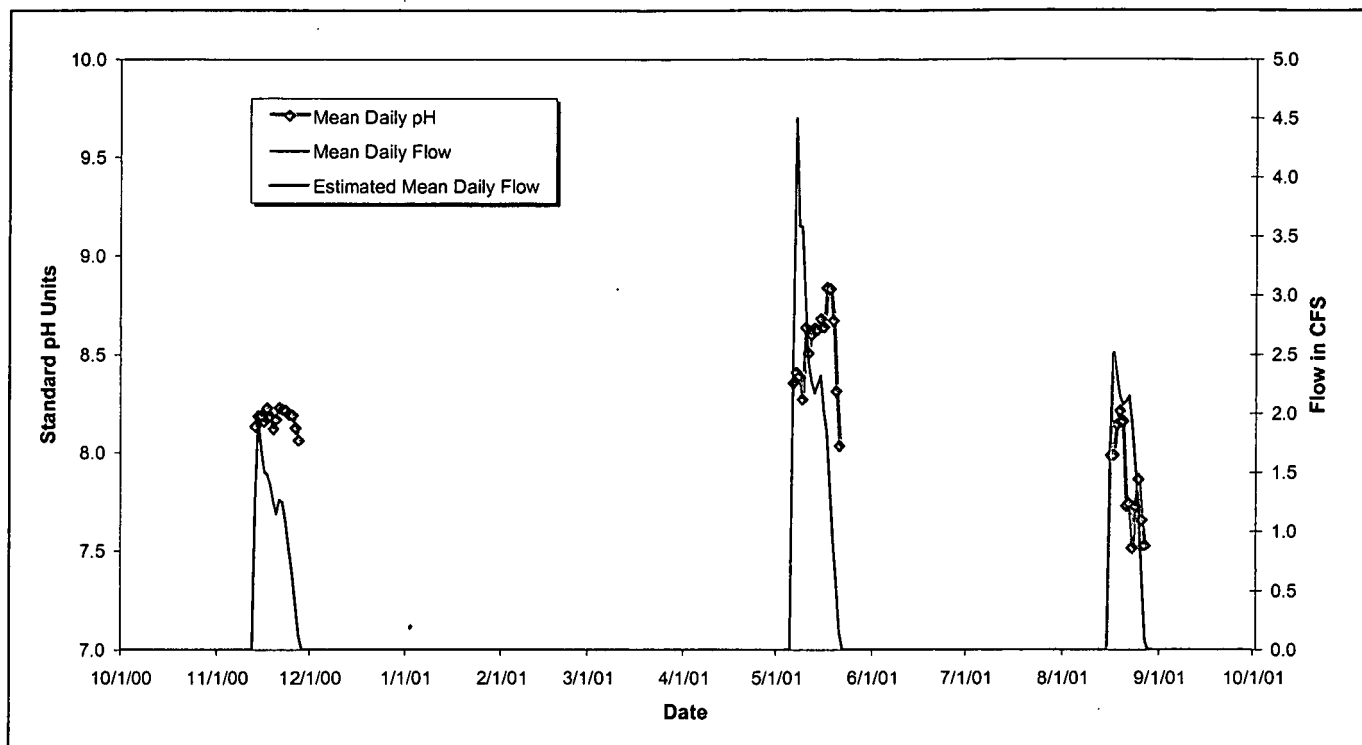


Figure 13-34. Mean Daily pH at GS11: Water Year 2001.

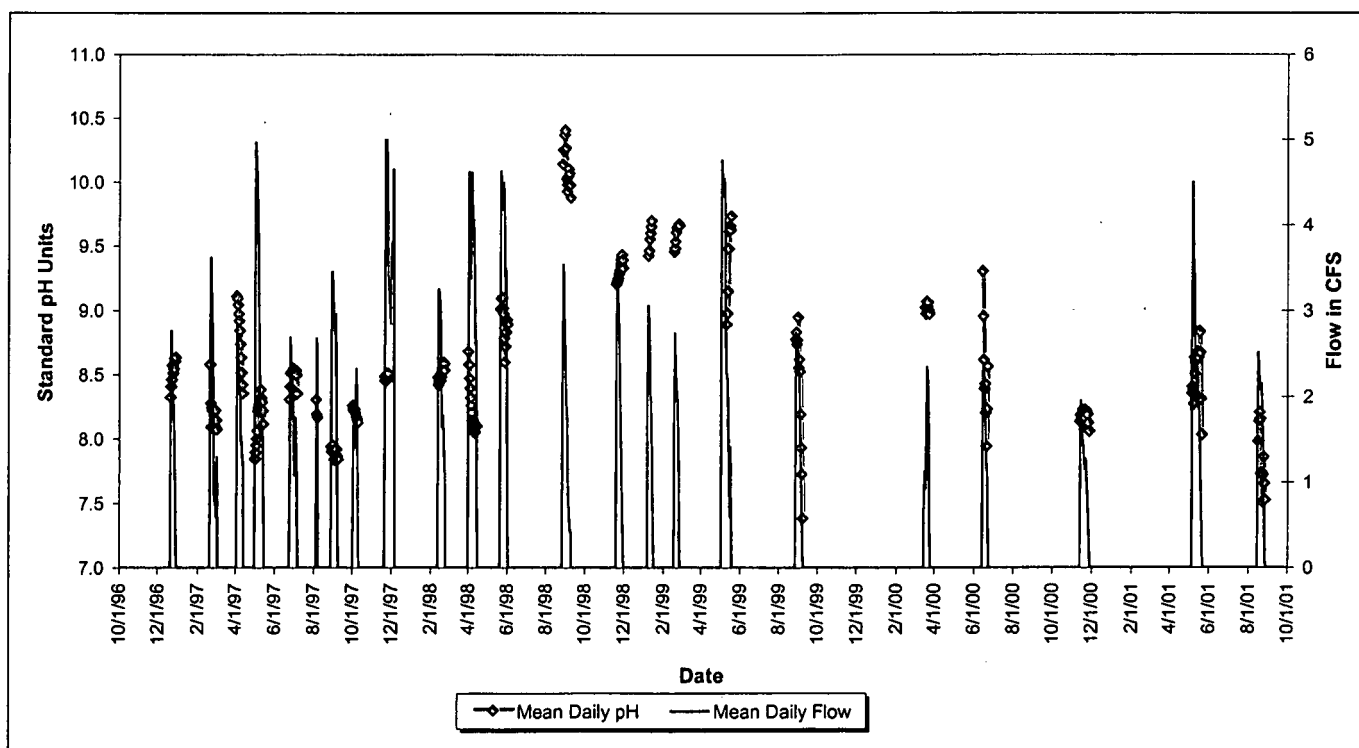


Figure 13-35. Mean Daily pH at GS11: Water Years 1997-2001.

Finally, Figure 13-36 and Figure 13-37 show variable turbidity measurements. These variations are likely the result of biological growth in the pond and turbidity from recent pond inflows.

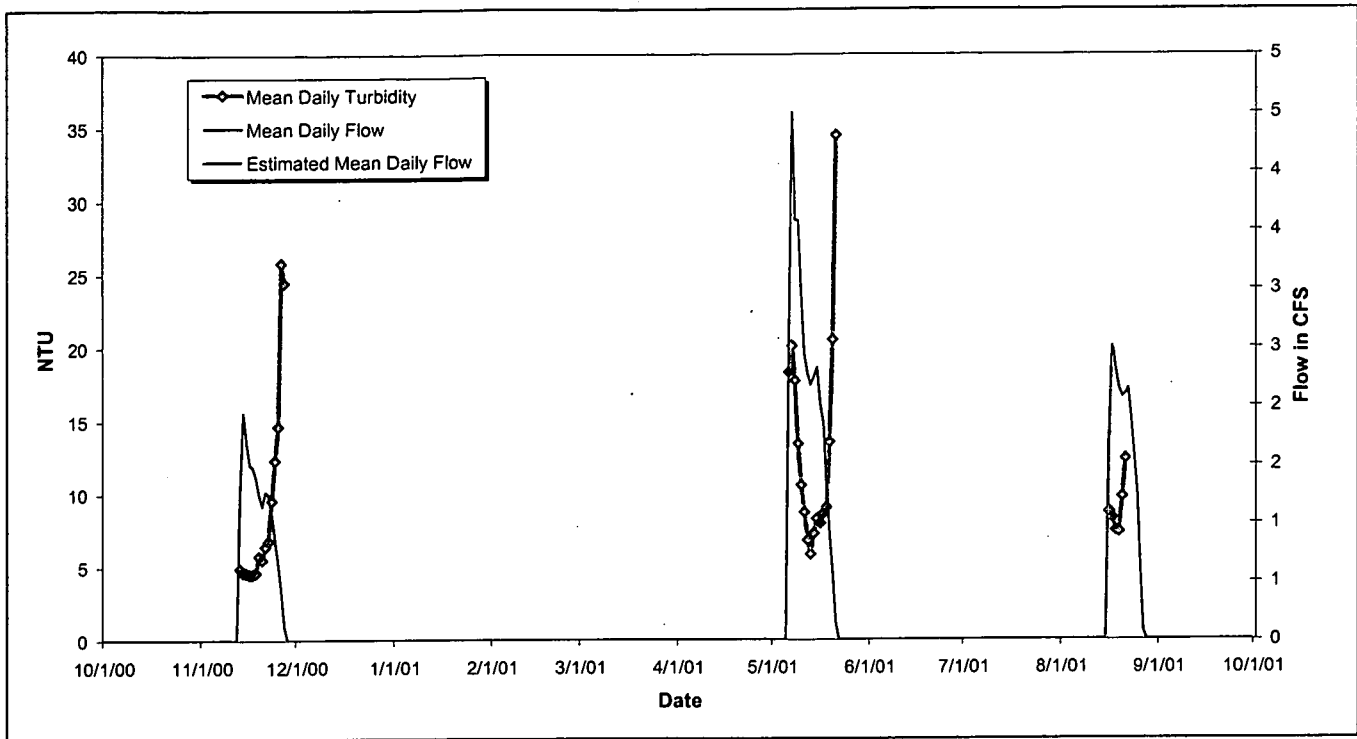


Figure 13-36. Mean Daily Turbidity at GS11: Water Year 2001.

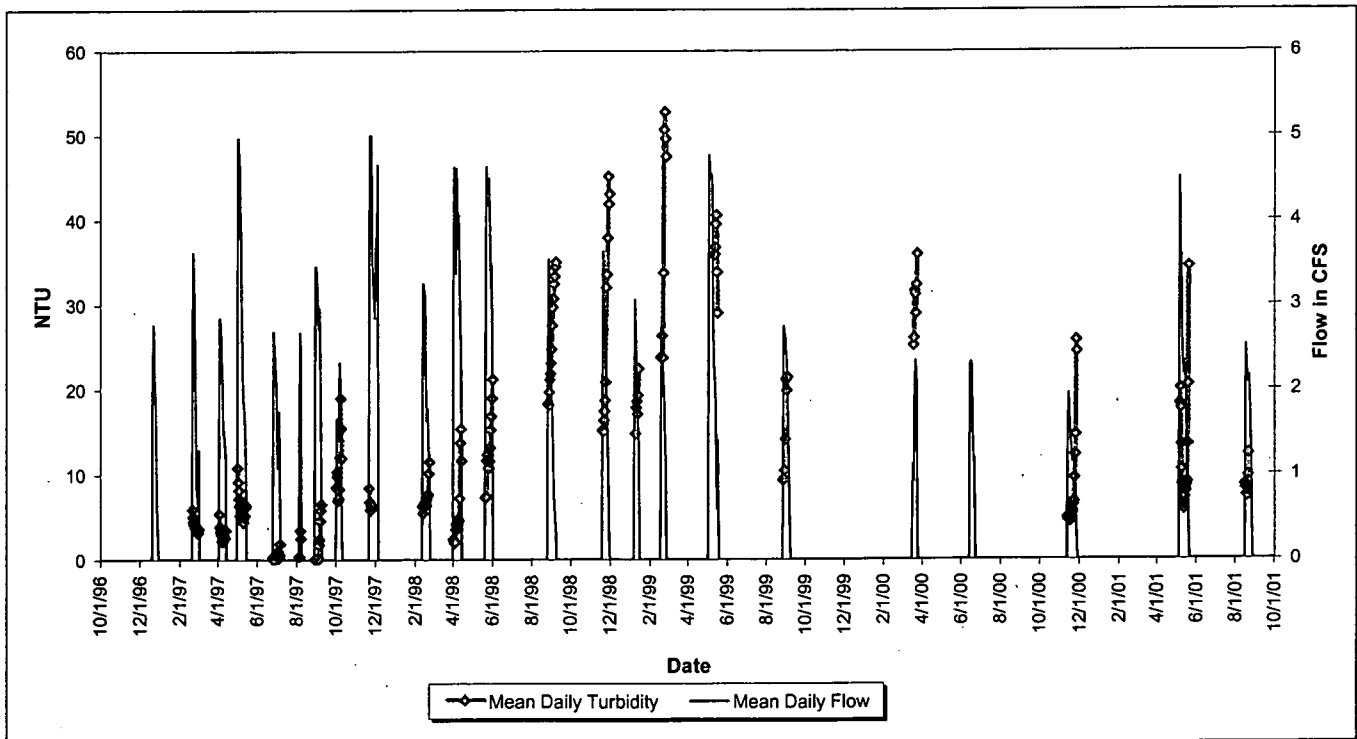


Figure 13-37. Mean Daily Turbidity at GS11: Water Years 1997-2001.

13.3.5 Location GS31

Monitoring location GS31 is located on Woman Cr. at the outlet of Pond C-2. Figure 3-47 shows the drainage area for GS31. The southern portion of the IA contributes flow to GS31.

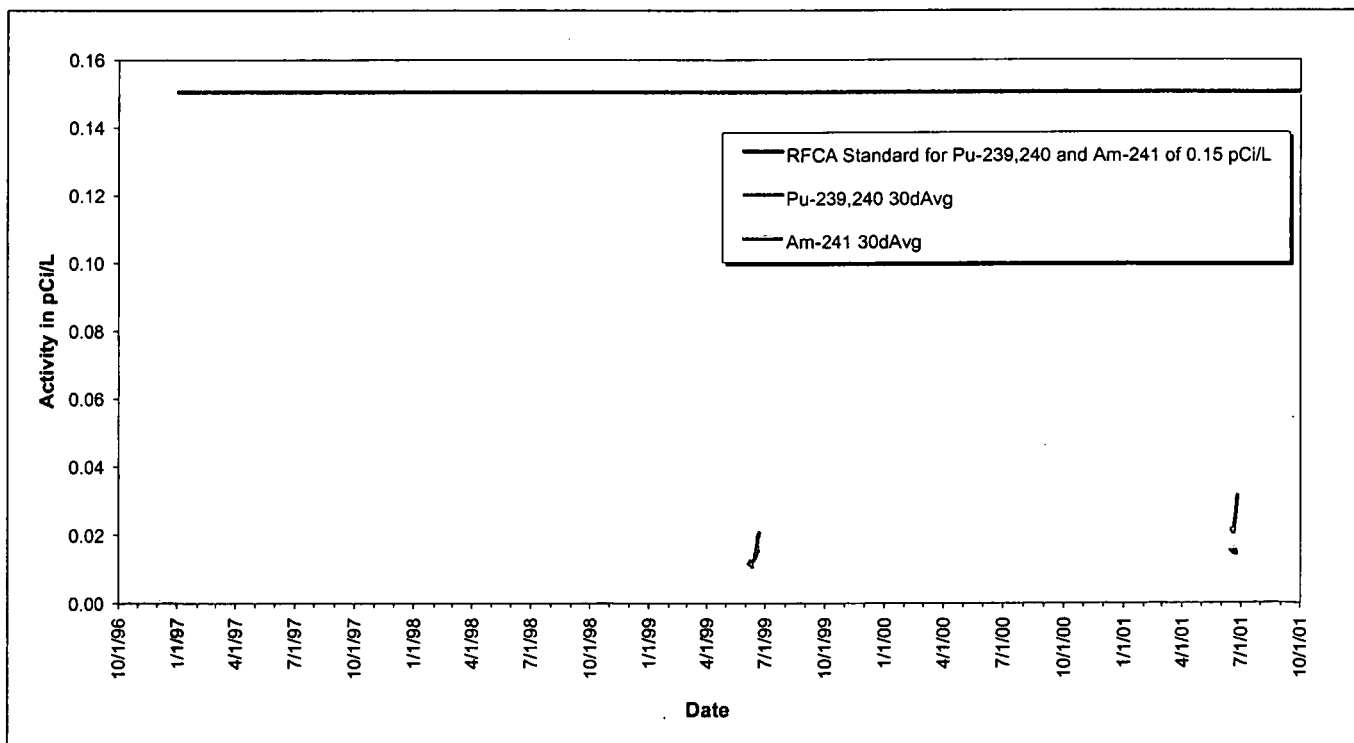
Table 13-13 shows that all of the annual average Pu and Am activities were below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-01) are well below 0.15 pCi/L. The average uranium activities are all well below 11 pCi/L.

Figure 13-38 and Figure 13-39 show no occurrences of reportable 30-day averages.

Figure 13-42 shows the 365 calendar-day averages using the proposed post-Closure calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, more values are calculated using a calendar window, and no values would be reportable using the current 0.15 pCi/L Standard.

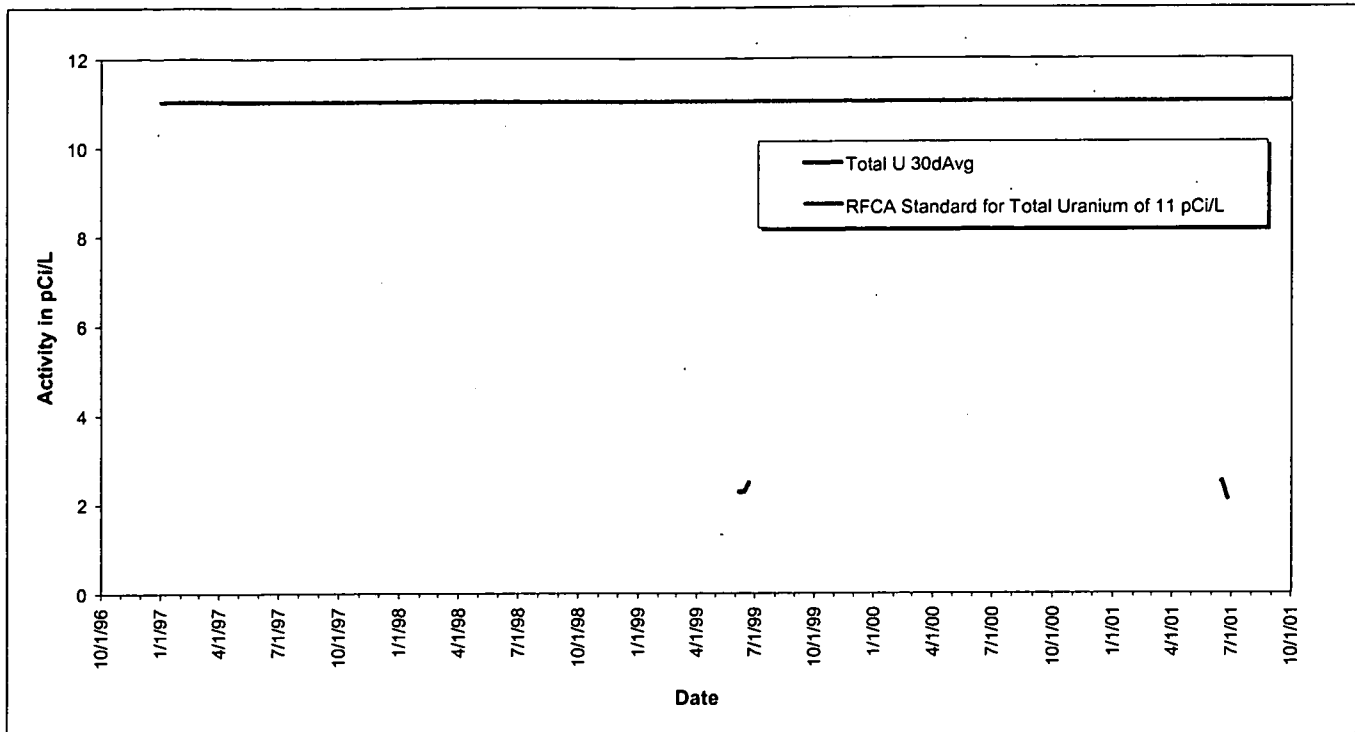
Table 13-13. Annual Volume-Weighted Average Radionuclide Activities at GS31 in WY97-01.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,-240	Total Uranium
1997	0.005	0.018	2.475
1998	0.015	0.009	2.223
1999	0.010	0.043	2.699
2000	No C-2 Discharge	No C-2 Discharge	No C-2 Discharge
2001	0.013	0.021	1.249
Total (WY97-01)	0.012	0.020	2.187



Note: 30 days of flow were not available for use in calculation until during (6/6/99), the 4th C-2 discharge after the start of RFCA monitoring.

Figure 13-38. Volume-Weighted 30-Day Average Pu and Am Activities at GS31: WY97-01.



Note: 30 days of flow were not available for use in calculation until during (6/6/99), the 4th C-2 discharge after the start of RFCA monitoring.

Figure 13-39. Volume-Weighted 30-Day Average Total Uranium Activities at GS31: WY97-01.

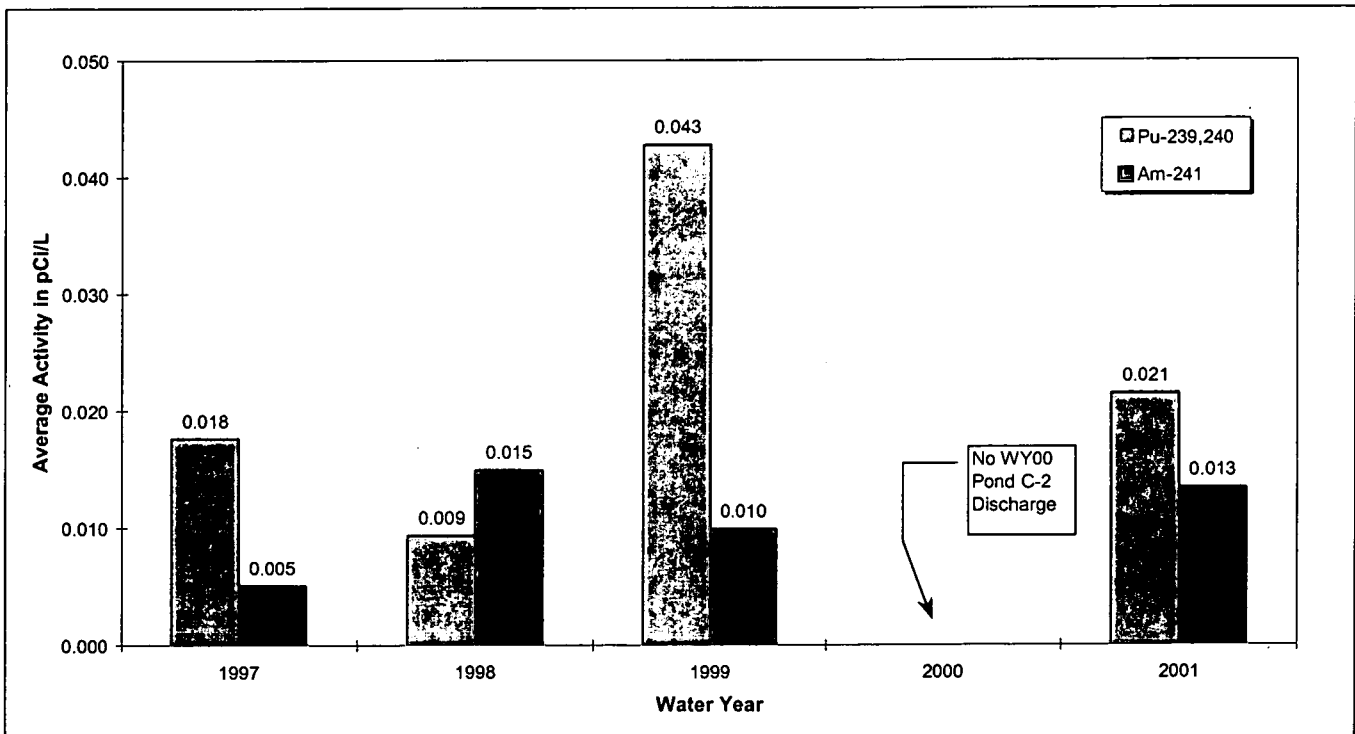


Figure 13-40. Annual Volume-Weighted Average Pu and Am Activities at GS31: WY97-01.

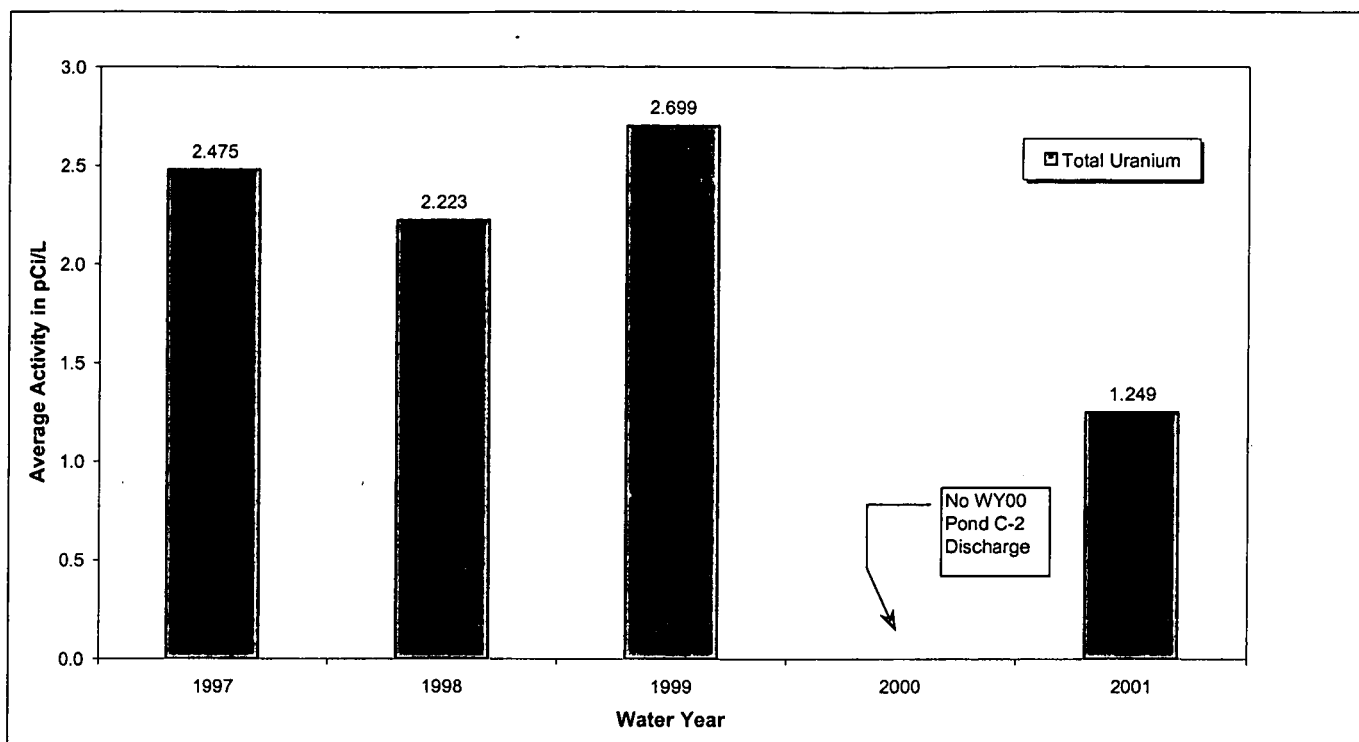
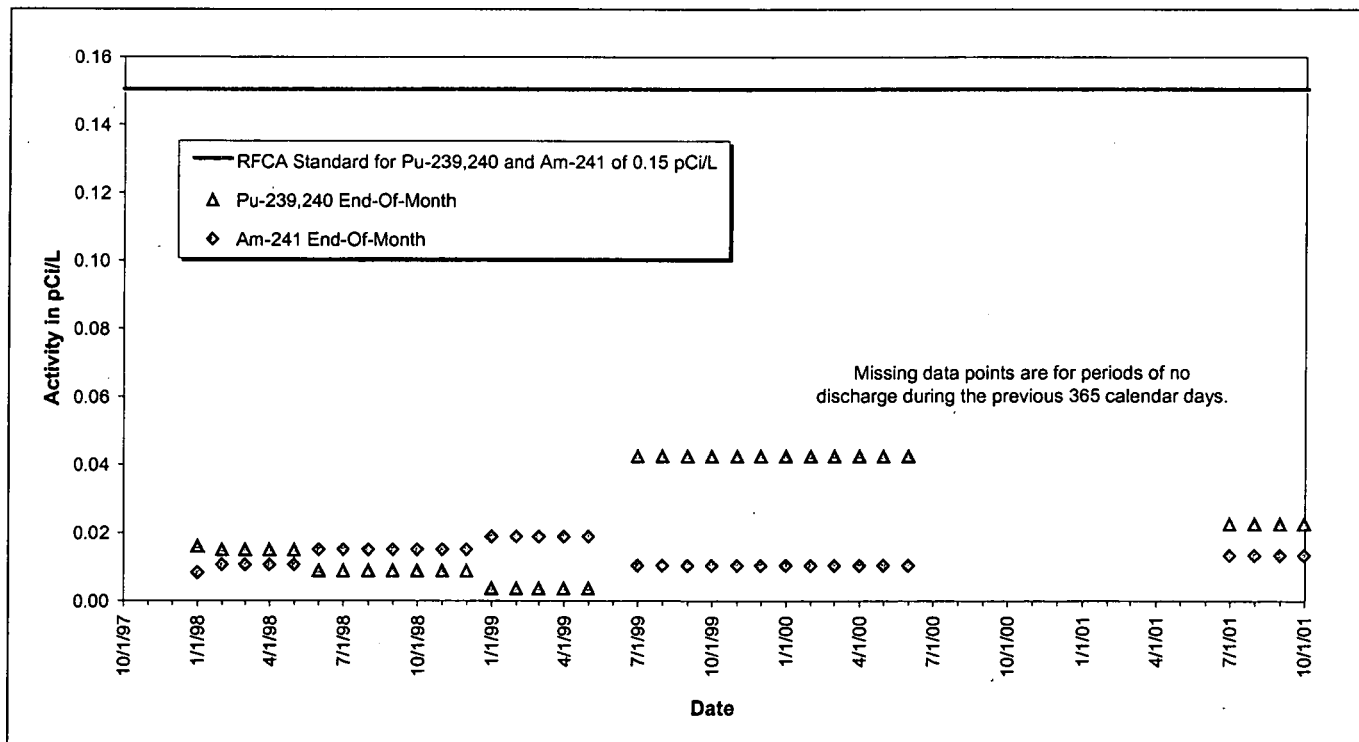


Figure 13-41. Annual Volume-Weighted Average Total Uranium Activities at GS31: WY97-01.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-42. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS31: WY97-01.

Mean daily water-quality parameter data are plotted in Figure 13-43 through Figure 13-50 along with the mean daily flow rate. Figure 13-43 and Figure 13-44 show the expected annual variation in water temperature.

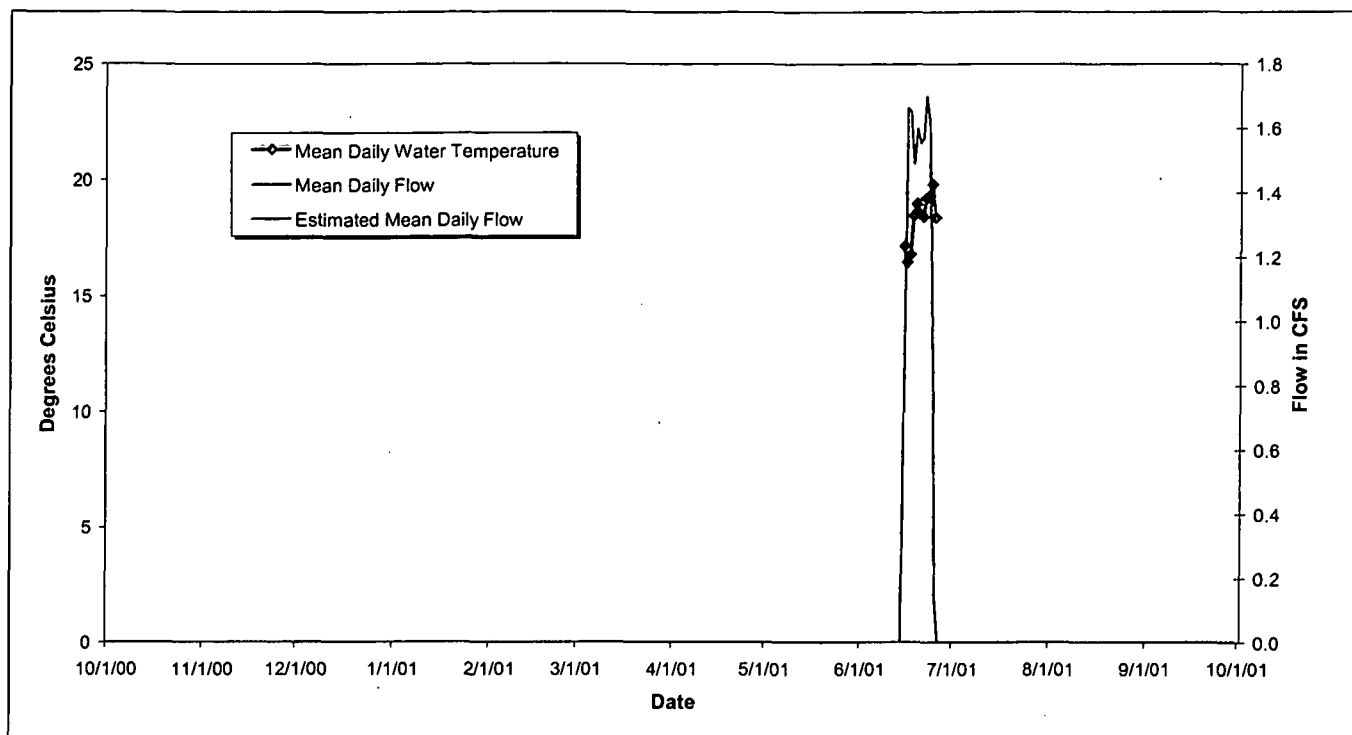


Figure 13-43. Mean Daily Water Temperature at GS31: Water Year 2001.

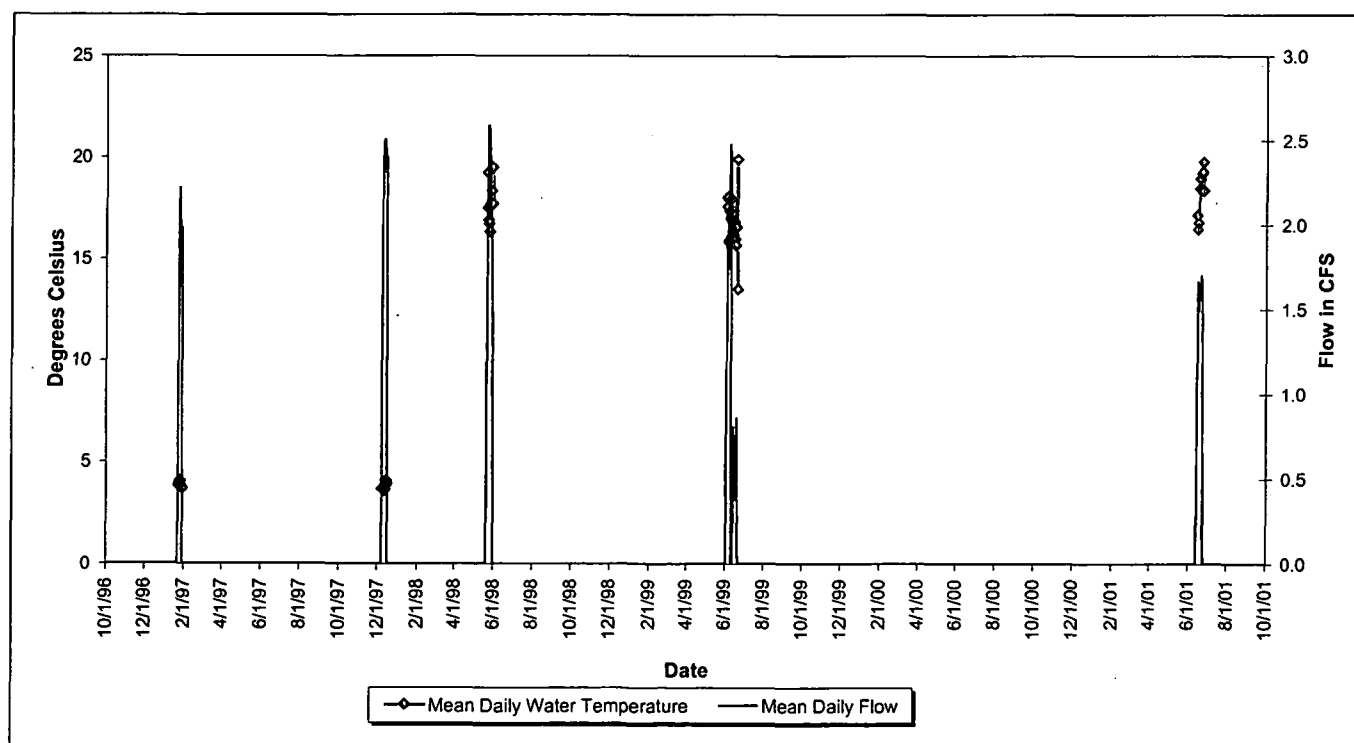


Figure 13-44. Mean Daily Water Temperature at GS31: Water Years 1997-2001.

Figure 13-45 and Figure 13-46 show fairly constant conductivities for each Pond C-2 discharge. The spike in conductivity during WY99 is during pond dewatering for valve testing and inspection.

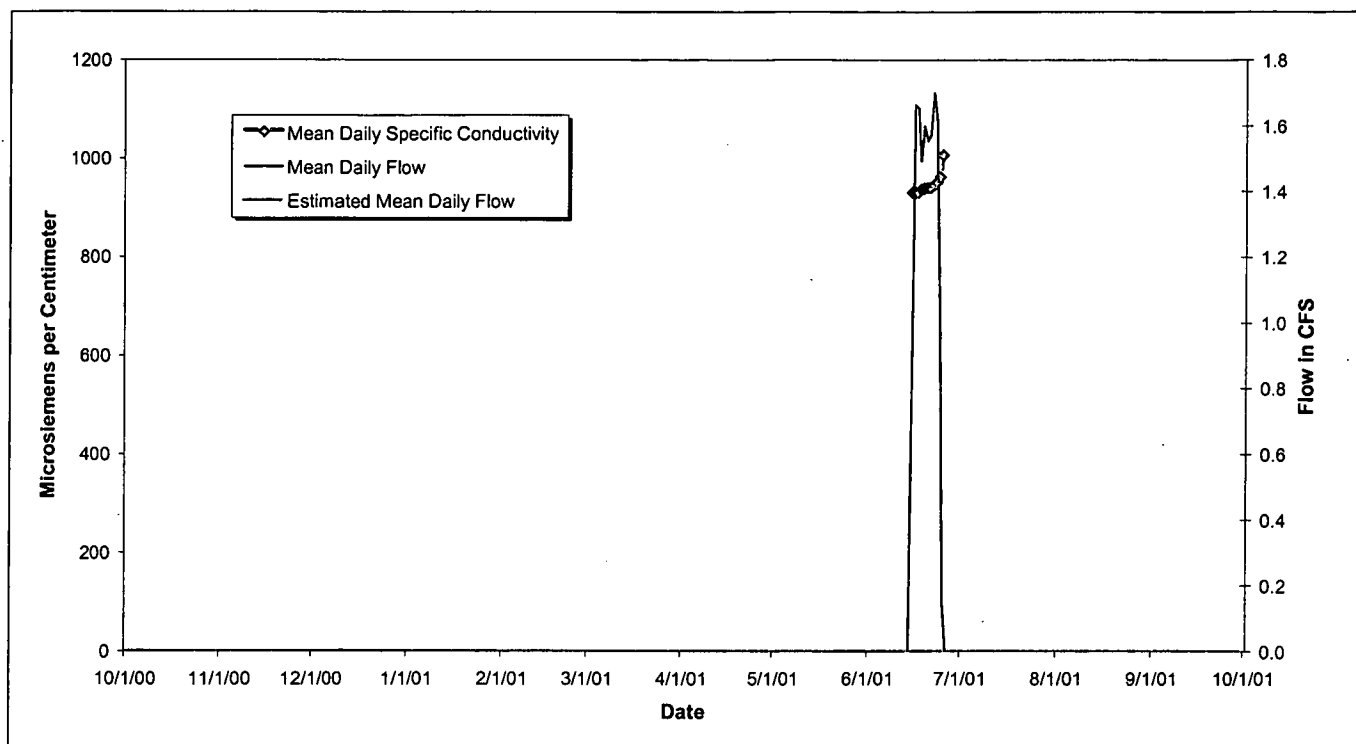


Figure 13-45. Mean Daily Specific Conductivity at GS31: Water Year 2001.

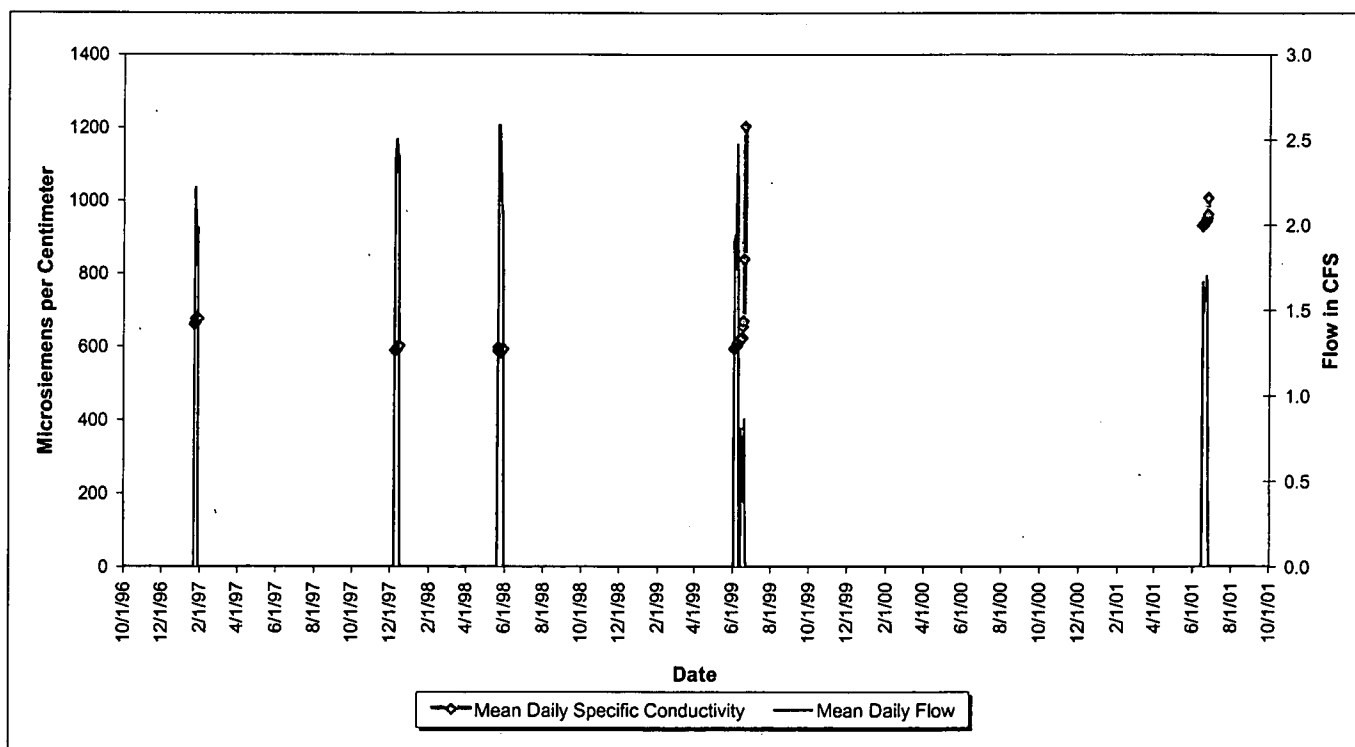


Figure 13-46. Mean Daily Specific Conductivity at GS31: Water Years 1997-2001.

Figure 13-47 and Figure 13-48 show the mean daily pH varying between 6.6 and 8.2.

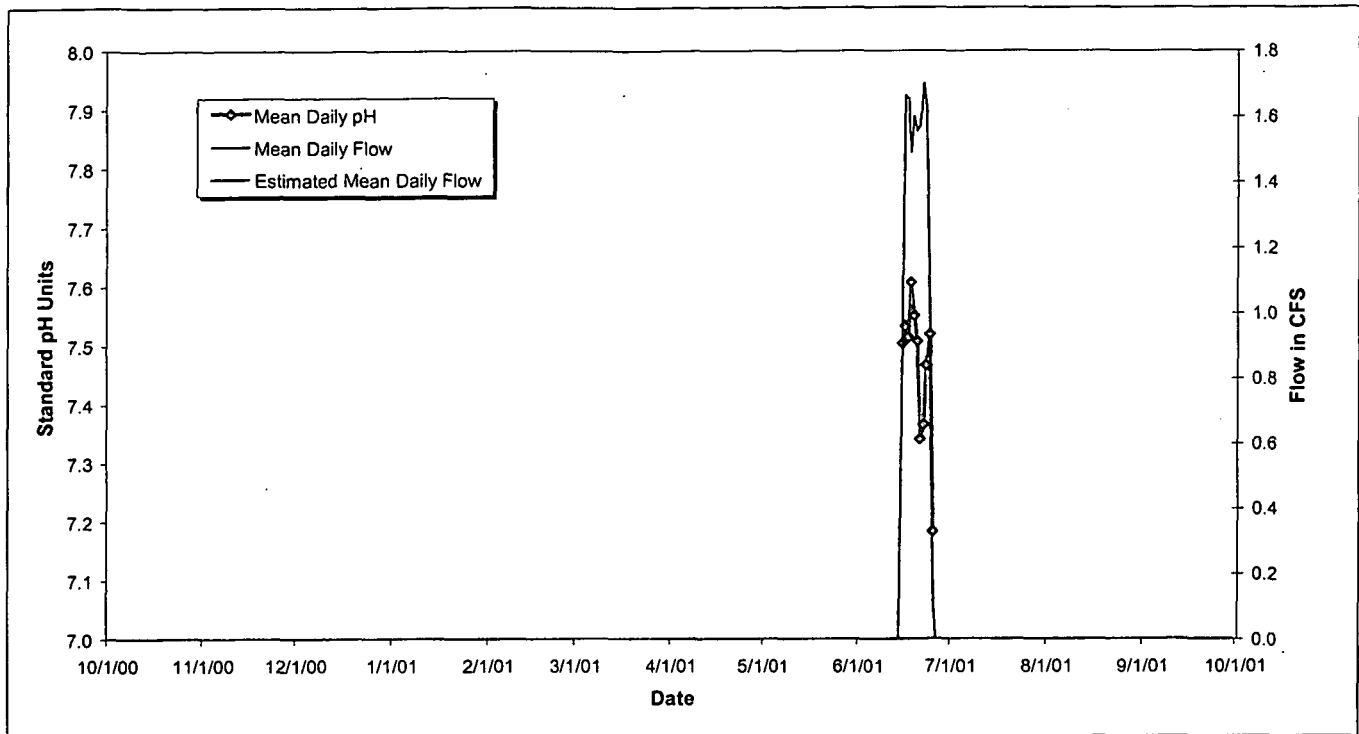


Figure 13-47. Mean Daily pH at GS31: Water Year 2001.

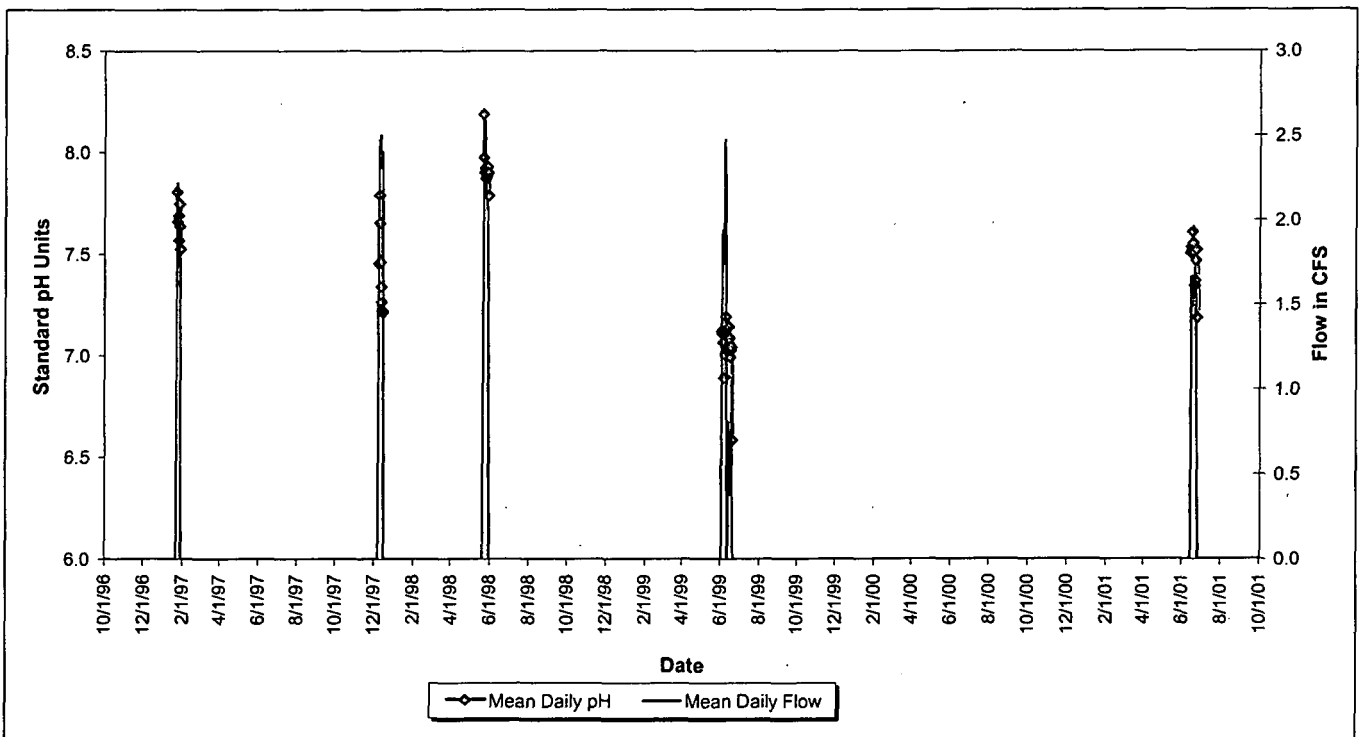


Figure 13-48. Mean Daily pH at GS31: Water Years 1997-2001.

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Finally, Figure 13-49 and Figure 13-50 show variable turbidity measurements. These variations are likely the result of biological growth in the pond and turbidity from recent pond inflows.

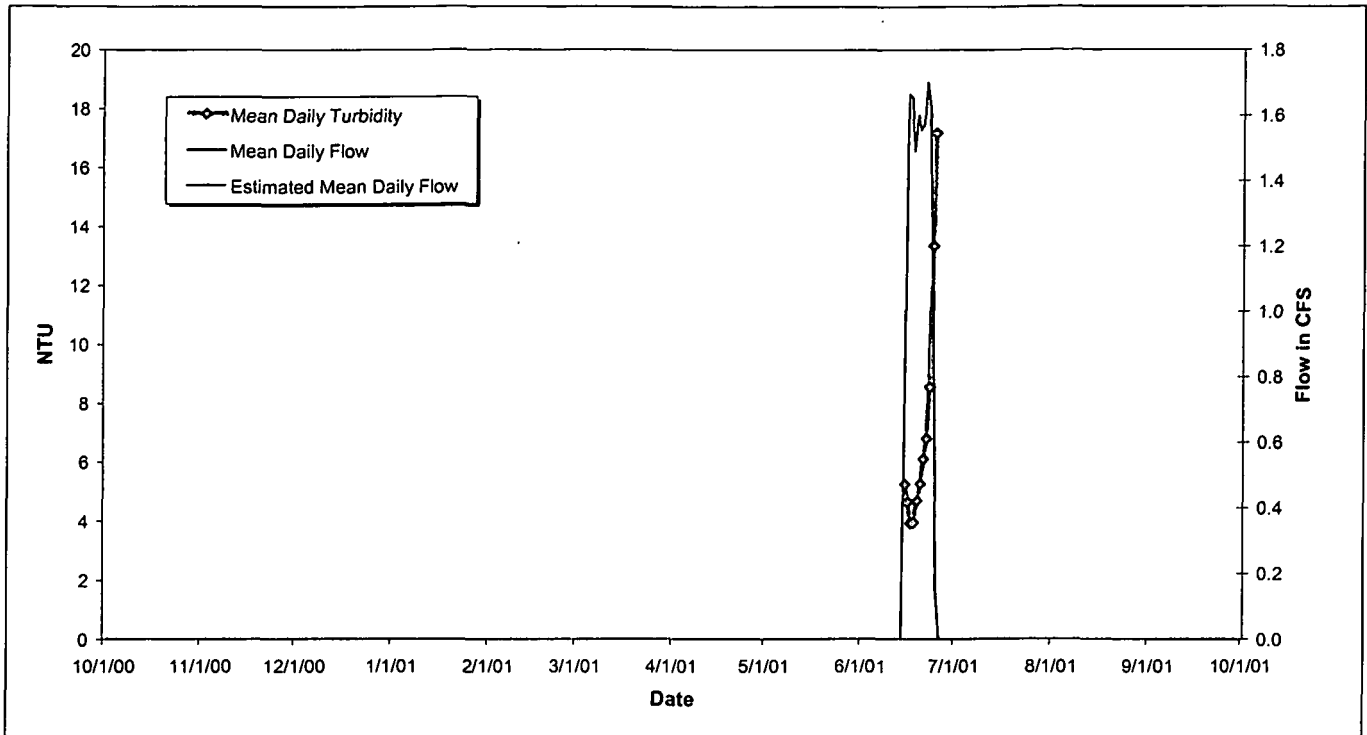


Figure 13-49. Mean Daily Turbidity at GS31: Water Year 2001.

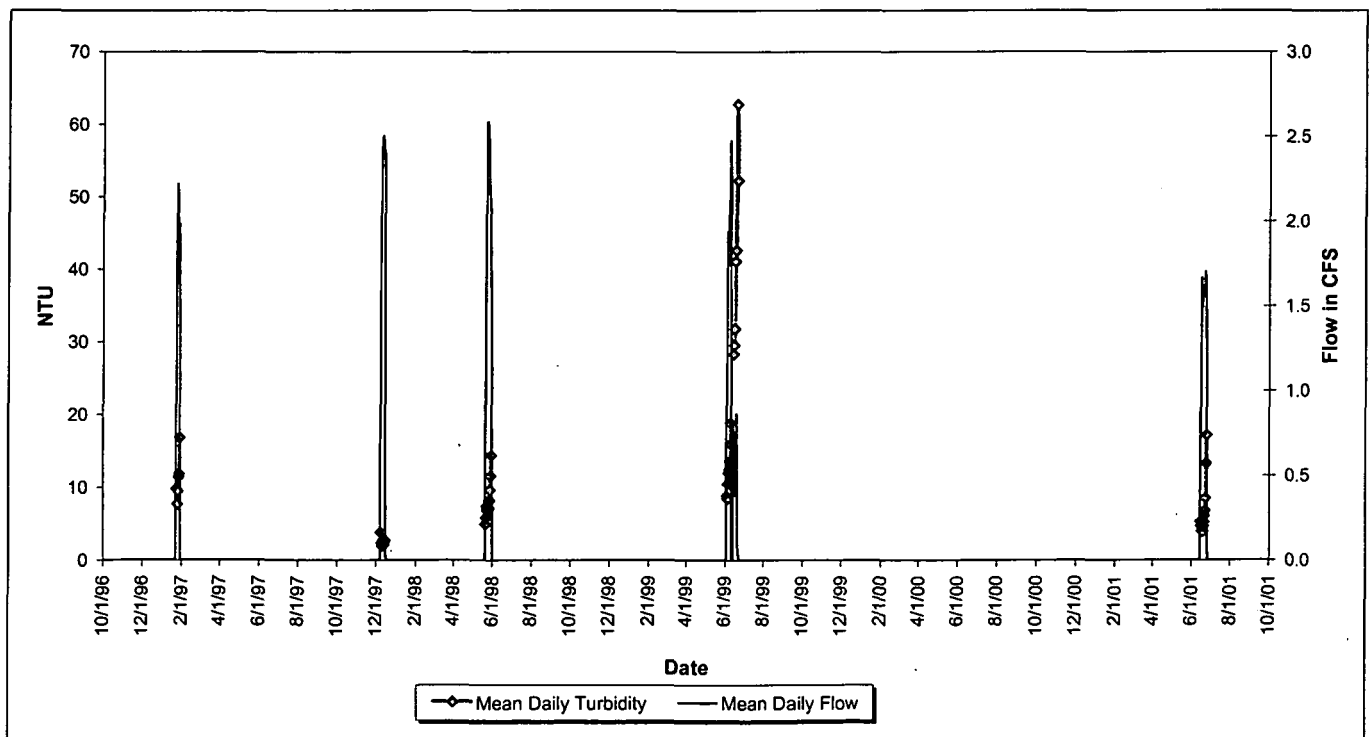


Figure 13-50. Mean Daily Turbidity at GS31: Water Years 1997-2001.

14. NON-POC MONITORING AT INDIANA STREET

Non-POC monitoring is conducted as a prudent management action, and it is the intent of the RFCA parties that no enforcement action will be taken based on this monitoring. There are several reasons to monitor for certain contaminants and nutrients in the water leaving the Site in both drainages. The actions to be taken based on this monitoring are variable and may not be known until the monitoring results are available.

The Colorado Water Quality Control Commission (CWQCC) is moving toward waste load allocations for all segments of the Big Dry Creek drainage. Nutrient loadings generated by the Site are carried offsite via Walnut Creek, which can either bypass Great Western Reservoir or be directed into the reservoir. Water bypassing the reservoir enters Segment 1 of Big Dry Creek, which then flows into the South Platte River. For these reasons, it will be necessary to monitor nutrient loads leaving the Site under all three of these conditions:

- Water leaving the Site via Walnut Creek is 100% Site discharge (used and potentially contaminated by the Site before discharge from terminal ponds).
- Water leaving the Site via Walnut Creek is 100% natural stream flow (no pond discharge included).
- Water leaving the Site via Walnut Creek is a mixture of Site pond discharge and natural stream flow.

With the changes in flow configuration in the Woman Creek drainage, there is a need to monitor to determine new ambient levels for various analytes at monitoring station GS01. The results of these analyses will be used to determine what changes in water quality, if any, have occurred as a result of the new flow configuration.

14.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The complete list of parameters and analytes (analytes collected by CDPHE) is given in Table 14-1. Only the continuously-measured water-quality parameters pH and conductivity are collected by the Site.

Table 14-1. Non-POC Monitoring Analytes and Parameters.

Total ammonia
Nitrite
Nitrate
Total phosphate as P
Orthophosphate
Be, Cd, Ag, Cr
Isotopic uranium
pH
Temperature
Conductivity
Flow

Non-POC monitoring is limited to Stream Segment 4, as represented by samples taken from Walnut Creek at Indiana Street and Woman Creek at Indiana Street (GS03 and GS01 respectively, see Figure 13-1).

14.2 WY01 MONITORING SCOPE

Table 14-2. Non POC Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS01	Woman Creek and Indiana St.	9" Parshall Flume	Yes
GS03	Walnut Creek and Indiana St.	6" and 36" Parallel Parshall Flumes	Yes

Table 14-3. Non POC Field Data Collection: Parameters and Frequency.

ID Code	Parameters		
	Discharge	Real-Time pH and Conductivity	Precipitation
GS01	15-min continuous	15-min continuous	5-min continuous
GS03	15-min continuous	15-min continuous	5-min continuous

Notes: Parameters are measured opportunistically when continuous flow is present and freezing conditions will not damage the probes.

14.3 DATA EVALUATION

No specific data evaluations are required of the Site for this monitoring objective.

Plots of mean daily water temperature, specific conductivity, and pH for the Indiana Street POCs (GS01 and GS03) are given below.³⁵ More detailed data for all parameters are presented in Appendix B.5.2. The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

14.3.1 Location GS01

No real-time water-quality data were collected at GS01 during WY01.

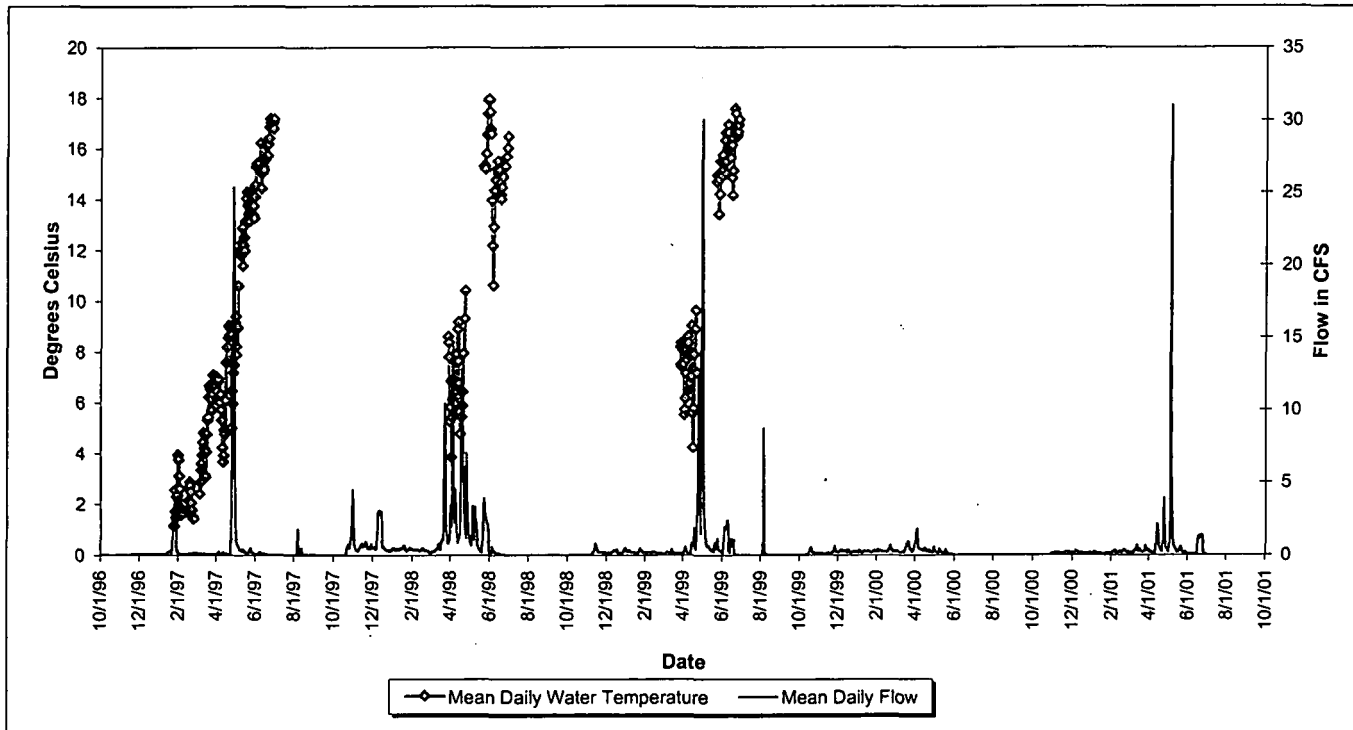


Figure 14-1. Mean Daily Water Temperature at GS01: Water Years 1997-2001.

³⁵ Mean daily water-quality values are given for days of measurable flow. Some data may be missing due to equipment failures and removal for calibration.

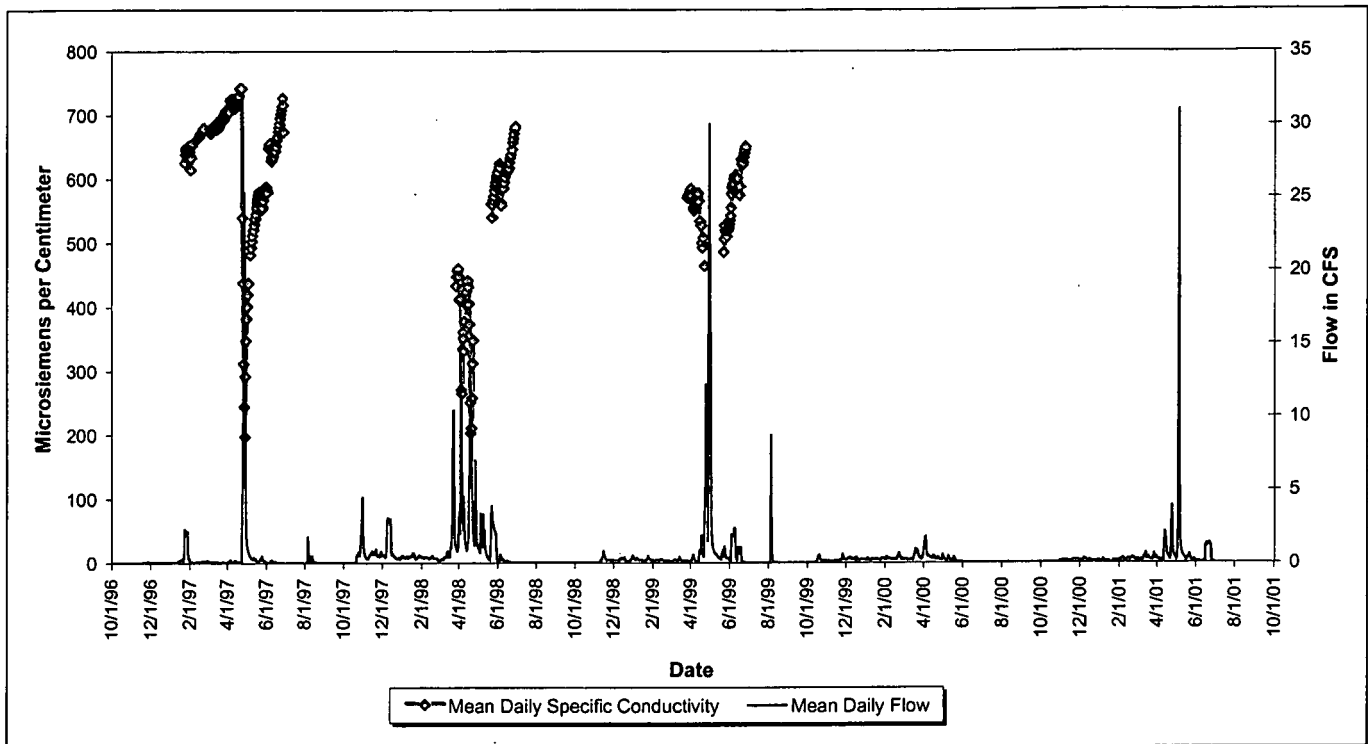


Figure 14-2. Mean Daily Specific Conductivity at GS01: Water Years 1997-2001.

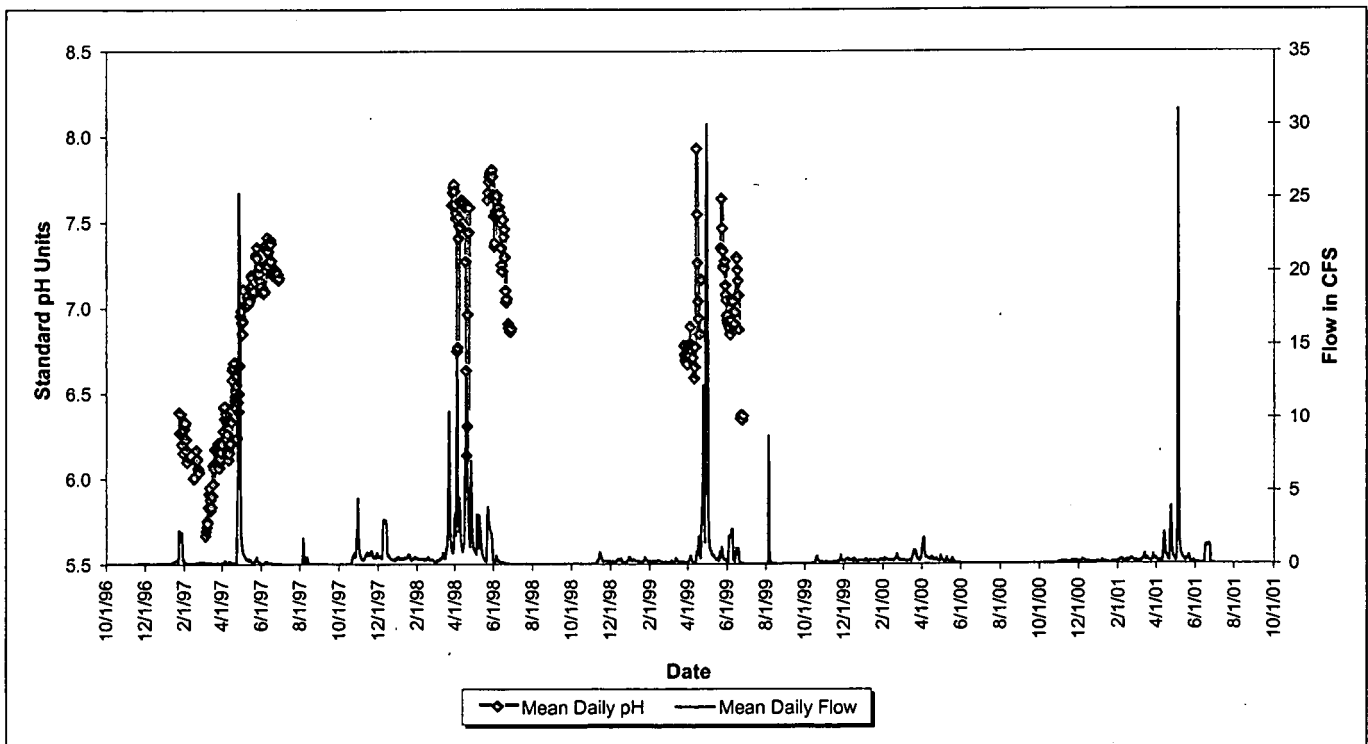


Figure 14-3. Mean Daily pH at GS01: Water Years 1997-2001.

14.3.2 Location GS03

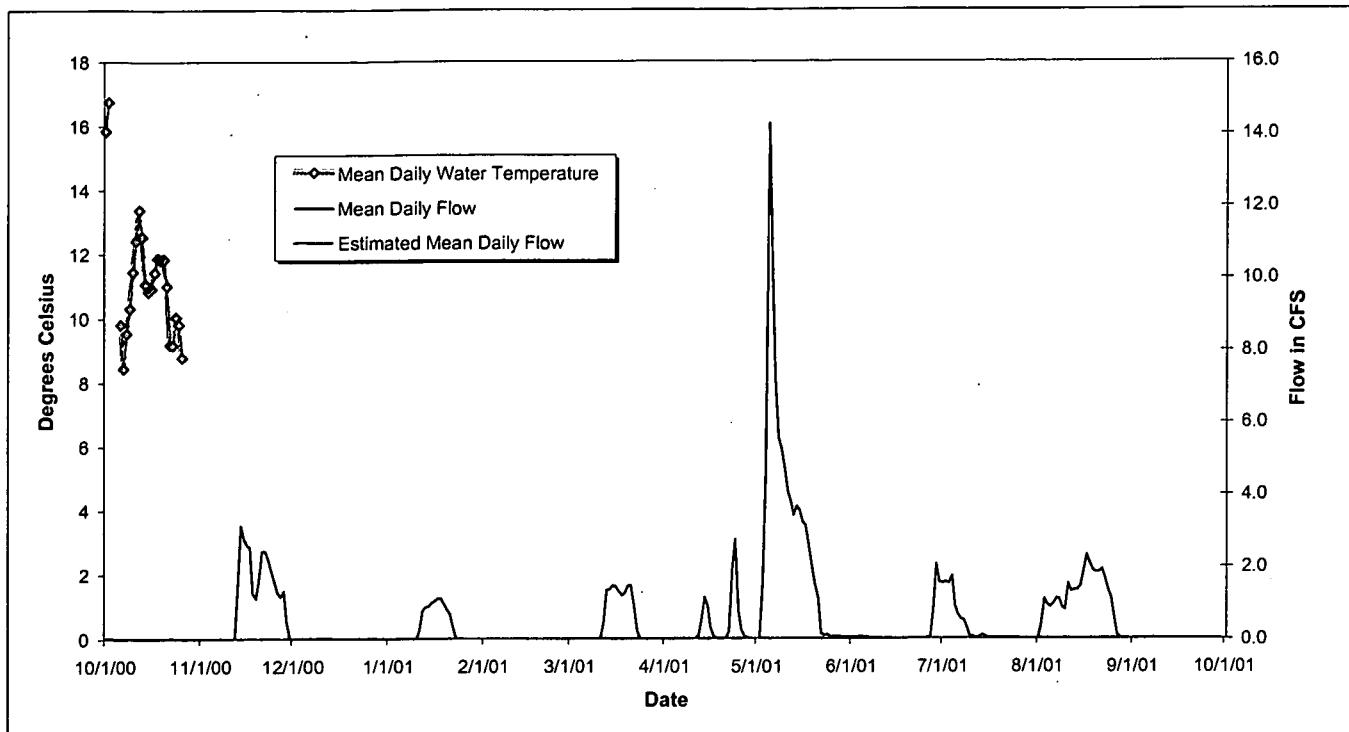


Figure 14-4. Mean Daily Water Temperature at GS03: Water Year 2001.

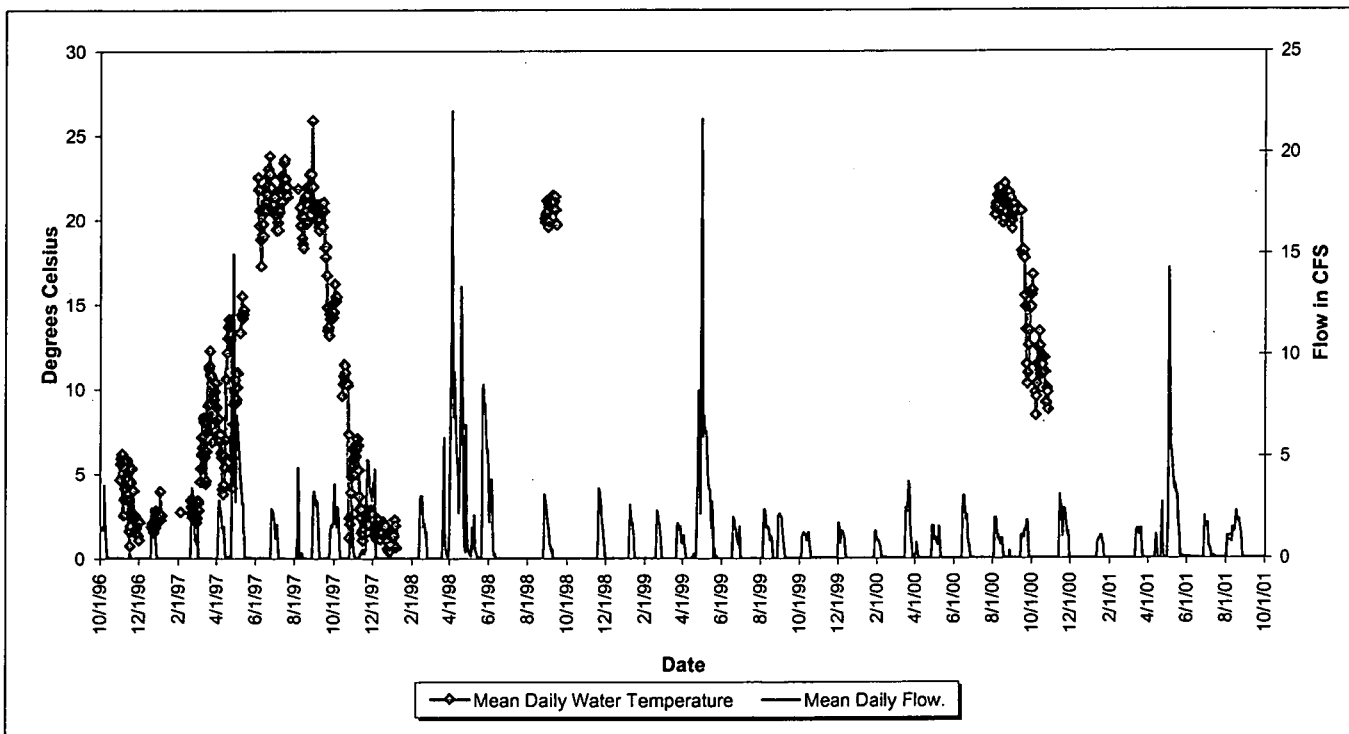


Figure 14-5. Mean Daily Water Temperature at GS03: Water Years 1997-2001.

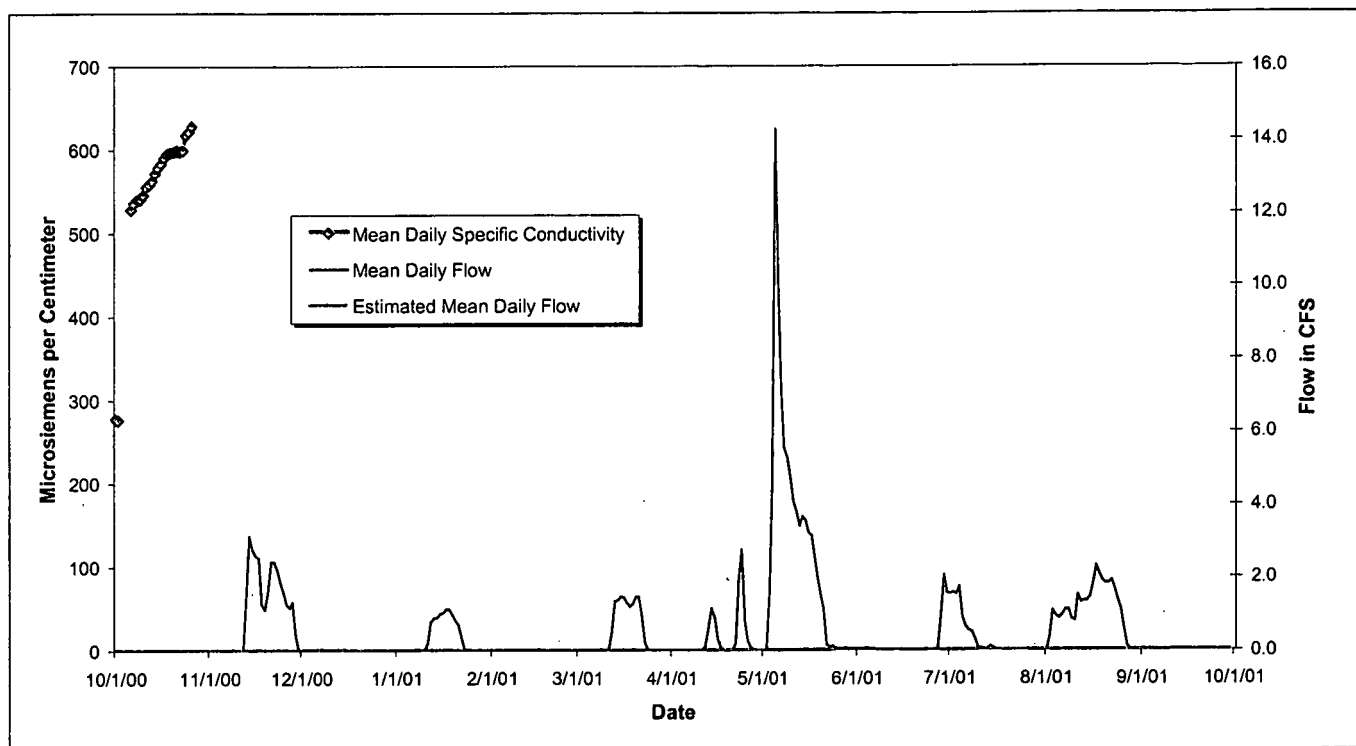


Figure 14-6. Mean Daily Specific Conductivity at GS03: Water Year 2001.

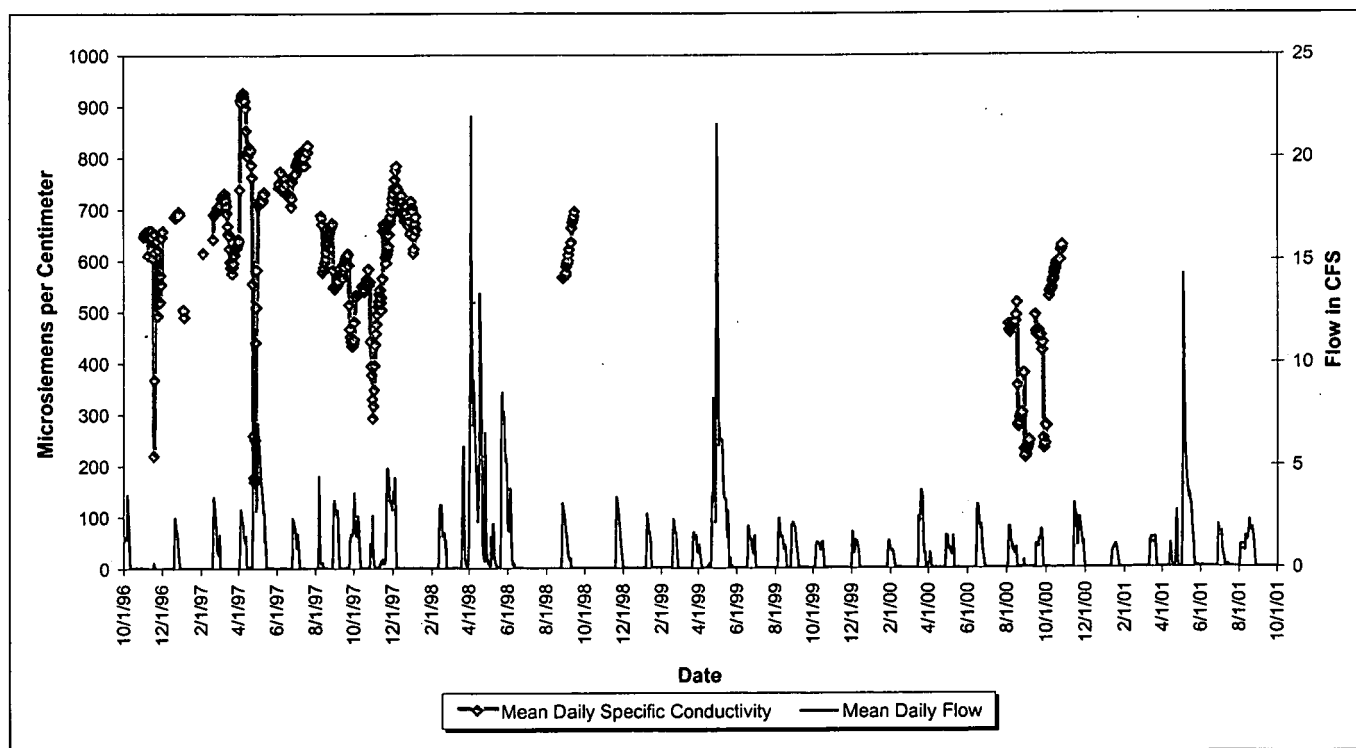


Figure 14-7. Mean Daily Specific Conductivity at GS03: Water Years 1997-2001.

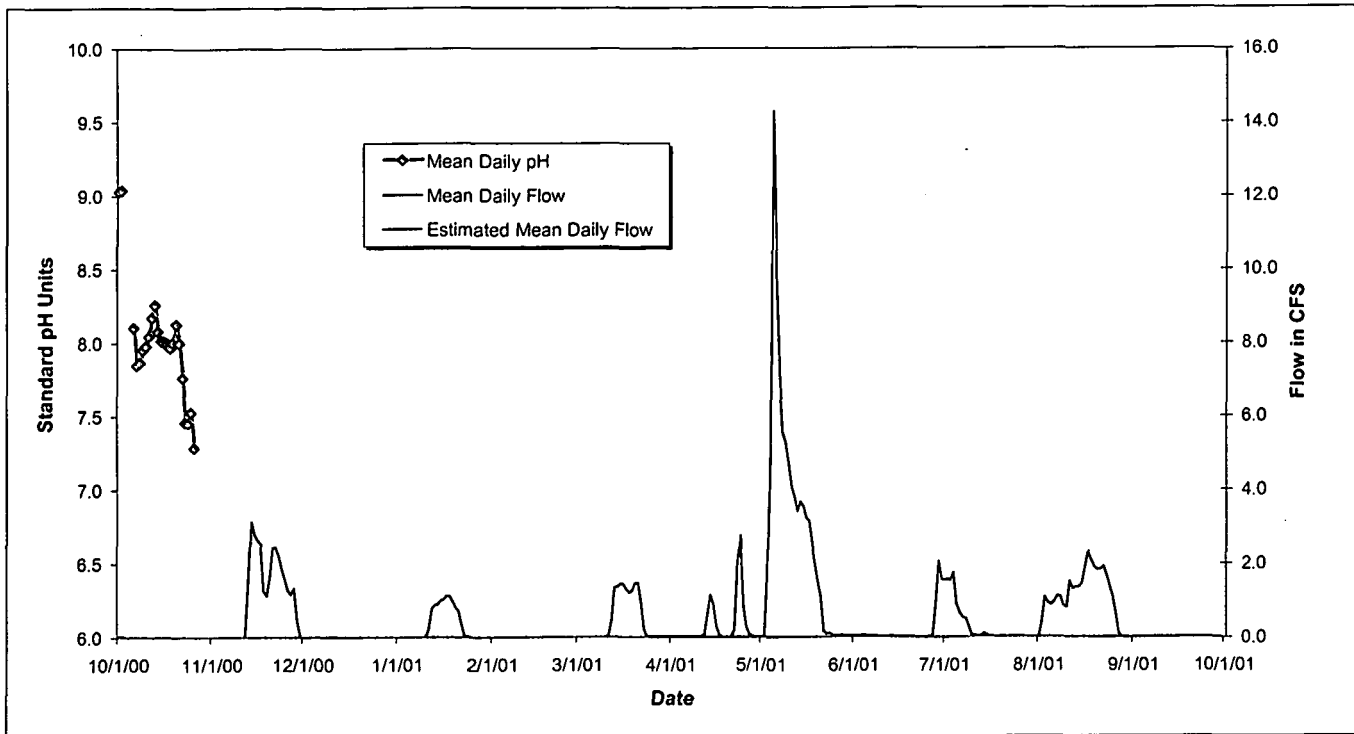


Figure 14-8. Mean Daily pH at GS03: Water Year 2001.

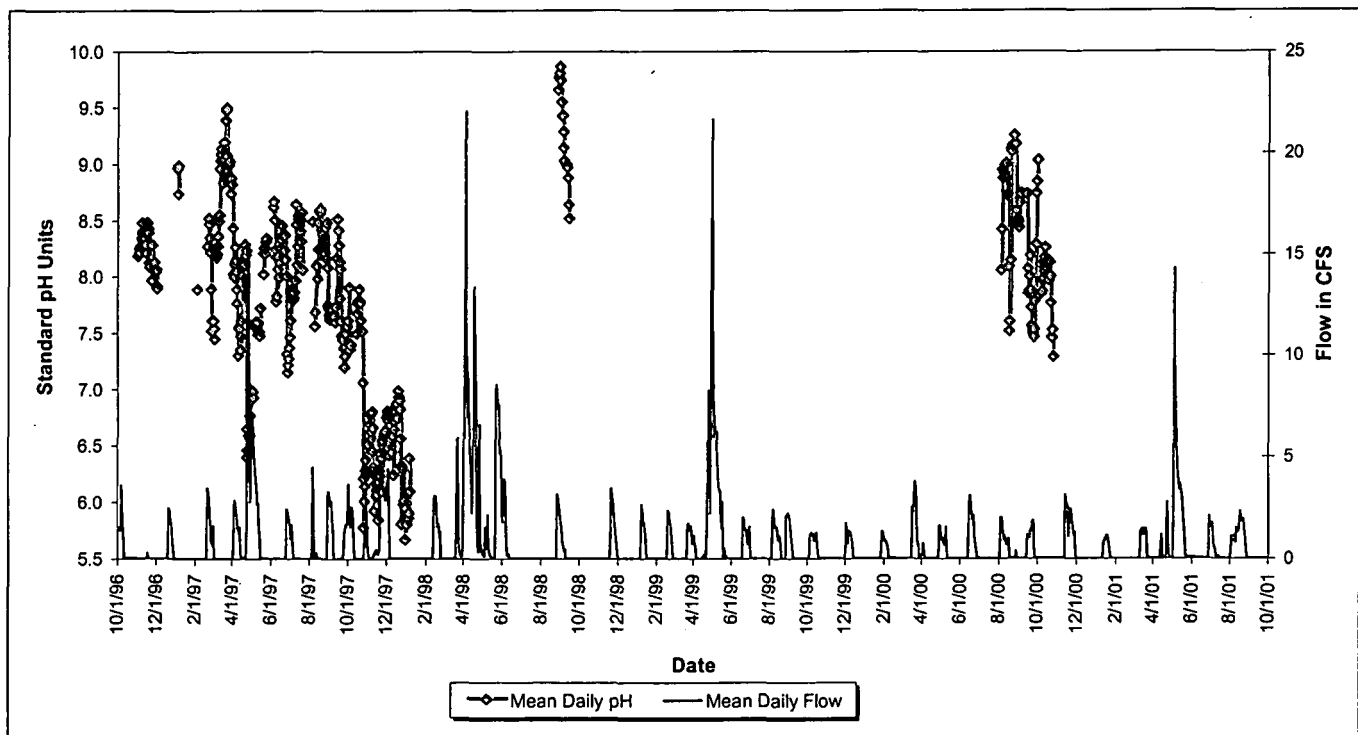


Figure 14-9. Mean Daily pH at GS03: Water Years 1997-2001.

15.BUFFER ZONE HYDROLOGIC MONITORING

Buffer Zone (BZ) hydrologic monitoring is performed to characterize interactions between the various environmental media. Possible interactions are presented in Table 15-1, which represents a conceptual model of integrated monitoring at the Site

As indicated in Table 15-1, there are interactions between surface water, air, groundwater, and the flora and fauna of the Site. Concerns have been expressed that changes in flow into and out of the Site could impact habitat and species of concern both onsite and downstream (e.g., the Prebles meadow jumping mouse onsite, and whooping cranes in Nebraska). For example, aggregate mining activities west of the Site may alter surface water flowing onto the Site and could impact species of concern on Site and downstream. The Department of Energy, Rocky Flats Field Office (DOE, RFFO) could be held responsible for these impacts. Also, Site closure activities (e.g., closure of the Building 995 wastewater treatment plant and modification of the Interceptor Trench System) could significantly alter drainage and flow patterns. In fact, water is one of the key abiotic components structuring some of the significant habitats. Should the availability or quality of water be affected by upgradient off-Site activities or upgradient on-Site activities, significant habitats could be adversely affected.

Table 15-1. Interactions Between Media, Significance at RFETS, and Monitoring to Evaluate Interactions.

Interactions Between Media	Significance at RFETS	Monitoring to Evaluate Interactions
Surface Water to Ecology	Potentially significant; surface water flow and contamination could impact local ecology. However, the local ecology has remained healthy during a variety of climatic and flow conditions.	Data from existing Site-wide surface water monitoring may be used to assess potential ecological impacts. The ecological monitoring program is also designed to detect ecological changes and assess general ecological health. In addition, project-specific evaluations are conducted to assess potential impacts.
Surface Water to Groundwater	Not significant; groundwater recharge from surface water is not significant.	No monitoring is necessary to characterize or assess groundwater impacts.
Surface Water to Air	Not significant; surface water quality will not significantly impact air quality (i.e., cause exceedances of air quality standards).	Any significant impacts on air or water quality will be detected by existing DOE, CDPHE, and project-specific monitoring.
Surface Water to Soil	Potentially significant; water in drainages and ponds will not significantly increase contaminant concentrations in soil; however, runoff could spread contaminants on surface soils and increase sediment concentrations.	Soil monitoring is conducted to determine the impacts of surface water runoff and the extent of required soil removal before, during, and after individual remediation projects. Results of the actinide migration studies will be used to determine whether existing soil monitoring needs to be modified or expanded.
Groundwater to Surface Water	Significant; most of the Site groundwater flows into Site surface water drainages.	Existing surface water monitoring will detect any impacts from groundwater. Data from Site-wide groundwater monitoring (Site-wide and project-specific) are also used to assess and predict potential surface water impacts.

Interactions Between Media	Significance at RFETS	Monitoring to Evaluate Interactions
Air to Surface Water	Potentially significant; point source and fugitive emission sources could degrade surface water quality.	Surface water monitoring (Site-wide and project-specific) will detect increases in contaminant concentrations. Also, any significant impacts on air quality will be detected by existing DOE, CDPHE, and project-specific air monitoring.
Soil to Surface Water	Significant; contaminants in soils are transported to surface water via runoff and surface water quality is degraded.	Site-wide and project-specific surface water monitoring will detect increases in contaminant concentrations. Soil monitoring is also conducted to determine the impacts of runoff and the extent of required soil removal before, during, and after individual remediation projects. Results of the actinide migration studies will be used to determine whether existing soil monitoring needs to be modified or expanded.

In consideration of these potential impacts, watershed-level information is collected regarding water availability in the Buffer Zone. Current flow monitoring in the Buffer Zone, in addition to that performed under RFCA, is shown in Table 15-2. The flow data are collected at 15-minute intervals, downloaded, and compiled monthly (presented in Section 3). However, data-quality objectives (DQOs) for this monitoring have not yet been developed, and data evaluation to assess ecological impacts is not included in this report

15.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

BZ hydrologic monitoring will be performed only as represented by GS01, GS02, GS03, GS04, GS05, GS06, GS16, SW118, and SW134 (see Figure 15-1).

Sampling at selected BZ stations is performed by collecting storm-event, rising-limb, flow-paced composites. The recommended monitoring design detailed in the IMP was to take samples for WY01 as specified in Table 15-4.

15.2 WY01 MONITORING SCOPE

Table 15-2. BZ Hydrologic Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS01	Woman Creek and Indiana St.	9" Parshall Flume	Yes
GS02	Mower Ditch and Indiana St.	9" Parshall Flume	No
GS03	Walnut Creek and Indiana St.	6" and 36" Parallel Parshall Flumes	Yes
GS04	Rock Creek at Rte. 128	9" Parshall Flume	Yes
GS05	North Woman Creek at West Site Boundary	9" Parshall Flume	Yes
GS06	South Woman Creek at West Site Boundary	6" Parshall Flume	Yes
GS16	Antelope Springs	6" Parshall Flume	No
SW118	N. Walnut Creek W of Portal 3	169.5" V-Notch Weir	Yes
SW134	Gravel Pits on Rock Creek Near West Site Boundary	6" Parshall Flume	Yes

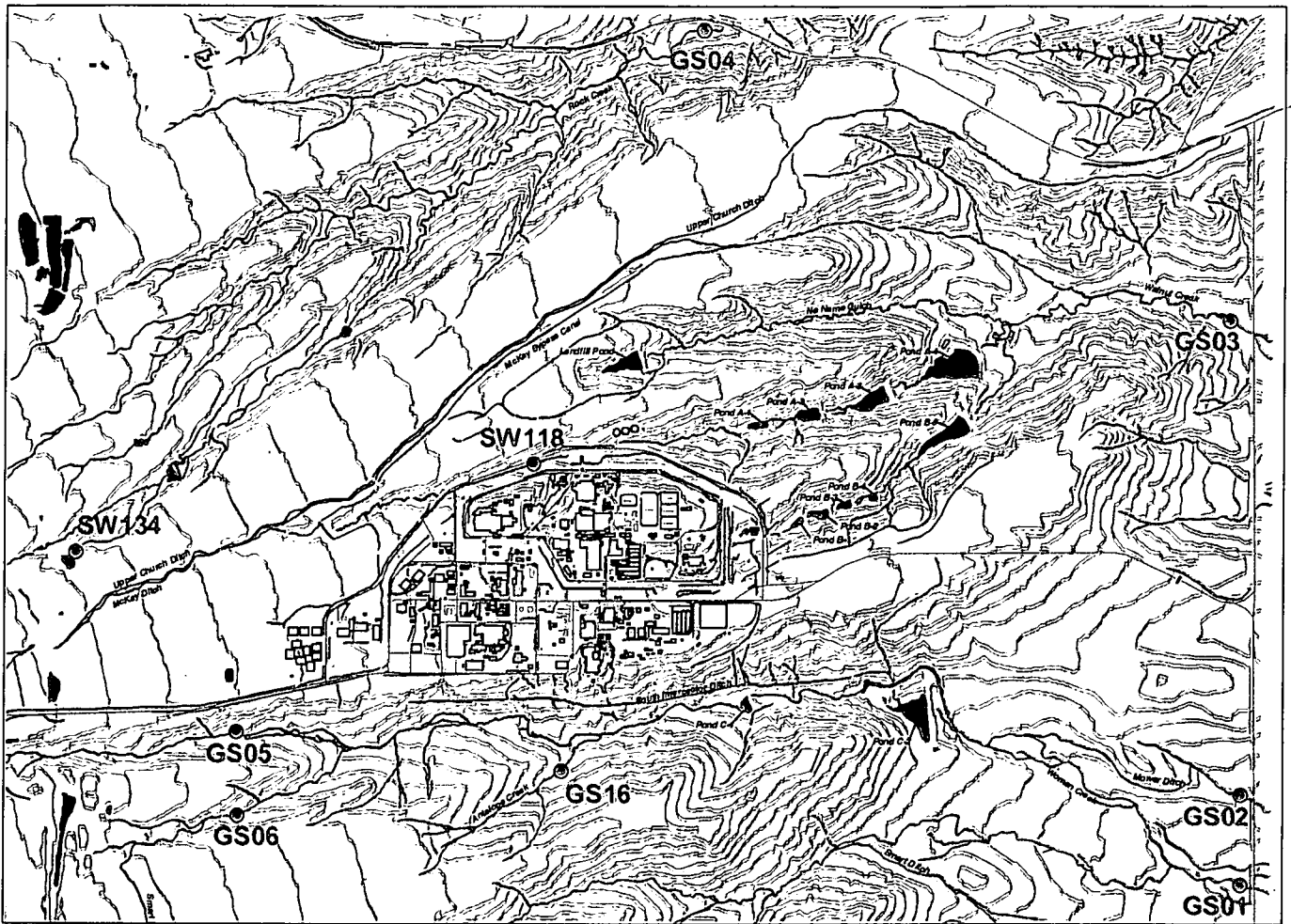


Figure 15-1. Water Year 2001 Buffer Zone Hydrologic Monitoring Locations.

Table 15-3. BZ Hydrologic Field Data Collection: Parameters and Frequency.

ID Code	Parameter	
	Discharge	Precipitation
GS01	15-min continuous	15-min continuous
GS02	15-min continuous	NA
GS03	15-min continuous	15-min continuous
GS04	15-min continuous	15-min continuous
GS05	15-min continuous	15-min continuous
GS06	15-min continuous	NA
GS16	15-min continuous	NA
SW118	15-min continuous	15-min continuous
SW134	15-min continuous	NA

All locations collect 5- and 15-minute flow data.

Table 15-4. BZ Hydrologic Sample Collection Protocols.

ID Code	Frequency	Type ^a
GS01	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS02	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS03	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS04	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS05	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS06	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS16	NA	NA
SW118	NA	NA
SW134	Quarterly	Storm-event, flow-paced composites

Notes: ^a Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

Table 15-5. BZ Hydrologic Analytical Targets (Analyses per Year).

ID Code	TSS: WY01 Actual (Target)	Sed/Sand: WY01 Actual (Target)	Ca,Mg,Na,K,Cl,F,SO ₄ ,HCO ₃ : WY01 Actual (Target)
GS01	1 (5)	1 (4)	1 (4)
GS02	0 (5)	0 (4)	0 (4)
GS03	3 (5)	3 (4)	3 (4)
GS04	2 (5)	2 (4)	2 (4)
GS05	0 (5)	0 (4)	0 (4)
GS06	1 (5)	1 (4)	1 (4)
SW134	4 (4)	4 (4)	4 (4)

15.3 DATA EVALUATION

Although no routine data evaluations are required, the following preliminary decision rules have been proposed by the IMP:

- IF The seasonal average or yearly average water availability or quality entering Rock Creek, Walnut Creek, or Woman Creek drainages diminishes below baseline due to off-Site activities,
- THEN The Site will notify Jefferson County and the U.S. Fish and Wildlife Service (USFWS) to determine what actions, if any, should be taken to restore availability and/or quality to historical levels.

- IF Activities occurring within Site boundaries result in a depletion of the seasonal or yearly average natural flow greater than the historic baseline, or at rates that are determined to have a negative impact on downstream habitats or individual species,
- THEN The Site will determine what management actions should be taken to ameliorate this problem.

IF Significant changes to alluvial groundwater availability in a wetlands habitat are determined,
THEN Notify parties of potential impacts to the wetlands habitat and continue groundwater and ecological monitoring.

IF A proposed action could adversely affect a listed species or its critical habitat,
THEN The Site will consult with the USFWS.

Secondary Data Uses Could Include:

- Determining the impact of mining on Rock Creek water quality and availability;
- Interpreting potential causes of declines in any of the valued habitats on Site;
- Supporting water management planning;
- Evaluating cumulative impacts of all actions (on and off Site);
- Validating any predicted impacts of the selected alternative to downstream resources; and
- Supporting the Site's biological assessment and USFWS's biological opinion.

Flow summaries for the BZ locations are given in Section 3: Hydrologic Data. More detailed hydrologic data are given in Appendix A.1: Hydrologic Data.

The following sections present the Buffer Zone Hydrologic data on a location-specific basis for the entire period of BZ Hydro monitoring. Each section includes a table of summary statistics for the location-specific analytes of interest and box-whisker plots.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

For the summary tables, when metals and TSS results are returned from the laboratory as 'undetect', $\frac{1}{2}$ of the detection limit is used for calculation purposes.

Box-whisker plots were calculated using S-Plus statistical evaluation software. For these plots, when metals and TSS results are returned from the laboratory as 'undetect', $\frac{1}{2}$ of the detection limit is used for calculation purposes. A key describing the components of the box-whisker plots is given in Appendix B.1: Data Evaluation Methods.

No discussion of the BZ Hydro data is provided below. The tables and box plots are intended to summarize the collected data.

15.3.1 Location GS01

Monitoring location GS01 is located on Woman Cr. at Indiana Street. Figure 3-8 shows the drainage area for GS01. Table 15-6 presents the analyte-specific summary statistics for BZ samples collected at GS01. Figure 15-2 through Figure 15-7 show the analyte-specific box plots for BZ samples collected at GS01. The southern portion of the IA and Pond C-2 contribute flow to GS01.

Table 15-6. BZ Summary Statistics for Analytical Results from GS01 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median	85 th Percentile	Maximum
TSS [mg/L]	15	47%	2.50	22.5	85.0
CHLORIDE [mg/L]	15	0%	43.0	49.0	82.0
FLUORIDE [mg/L]	15	0%	0.41	0.52	0.69
SULFATE [mg/L]	15	0%	37.0	52.8	100
TOTAL ALKALINITY [mg/L]	14	0%	165	181	230
TDS [mg/L]	14	0%	330	408	510
ALUMINUM [µg/L]	15	0%	96.5	1222	5010
ANTIMONY [µg/L]	15	67%	0.33	1.19	11.2
ARSENIC [µg/L]	15	53%	0.82	1.95	2.65
BARIUM [µg/L]	15	0%	99.0	112	158
BERYLLIUM [µg/L]	15	67%	0.14	0.26	0.75
CADMIUM [µg/L]	15	80%	0.05	0.12	2.50
CALCIUM [µg/L]	15	0%	53000	64510	80600
CHROMIUM [µg/L]	15	40%	0.45	2.37	4.60
COBALT [µg/L]	15	73%	0.25	0.82	2.65
COPPER [µg/L]	15	27%	1.20	4.48	5.80
IRON [µg/L]	15	7%	125	871	3570
LEAD [µg/L]	15	53%	0.58	2.61	3.10
LITHIUM [µg/L]	13	0%	11.4	15.0	38.5
MAGNESIUM [µg/L]	15	0%	13600	17990	23300
MANGANESE [µg/L]	15	7%	8.20	19.4	56.4
MERCURY [µg/L]	15	100%	0.05	0.05	0.10
MOLYBDENUM [µg/L]	13	23%	0.99	2.41	6.45
NICKEL [µg/L]	15	27%	1.40	3.89	6.60
POTASSIUM [µg/L]	15	0%	2440	4063	7700
SELENIUM [µg/L]	15	60%	1.30	2.39	6.30
SILVER [µg/L]	15	93%	0.11	0.38	1.35
SODIUM [µg/L]	15	0%	30300	48800	64400
STRONTIUM [µg/L]	13	0%	363	420	565
THALLIUM [µg/L]	15	87%	0.44	0.88	7.80
TIN [µg/L]	13	92%	0.34	2.48	7.60
VANADIUM [µg/L]	15	20%	1.40	4.05	10.6
ZINC [µg/L]	15	7%	8.80	13.4	26.7

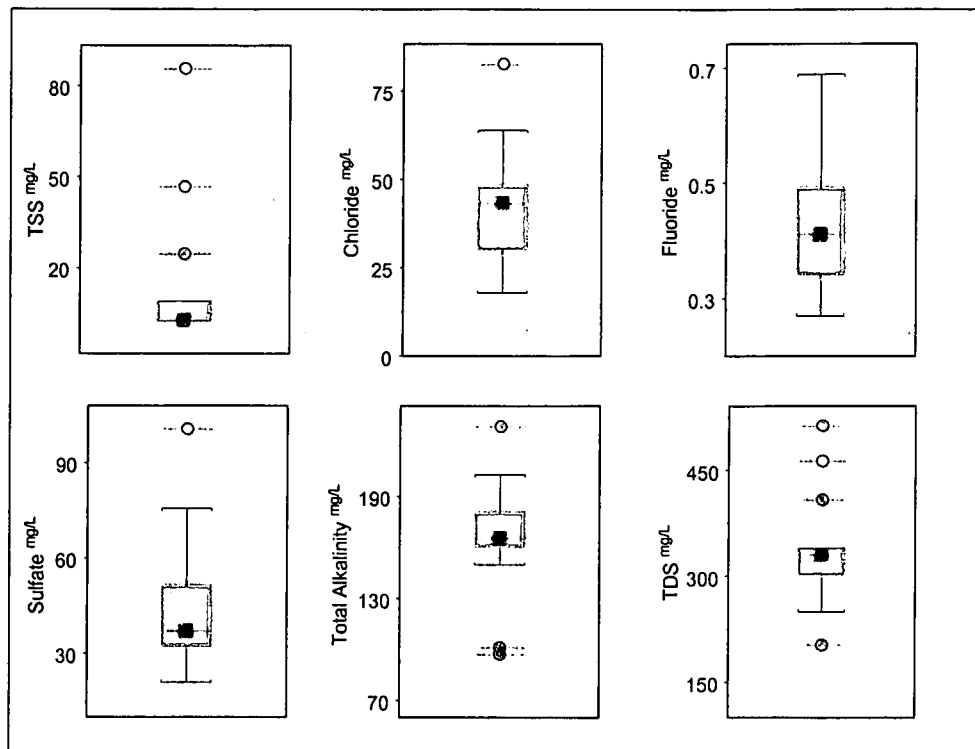


Figure 15-2. Water-Quality Parameter Box Plots for Location GS01.

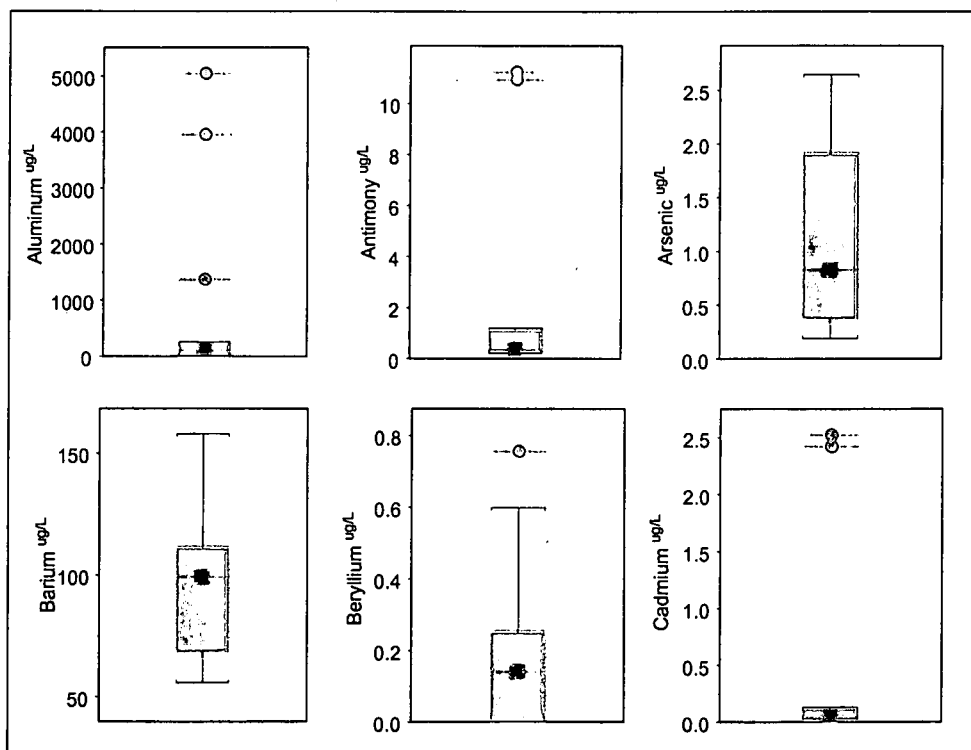


Figure 15-3. Total Metals Box Plots for Location GS01: Aluminum through Cadmium.

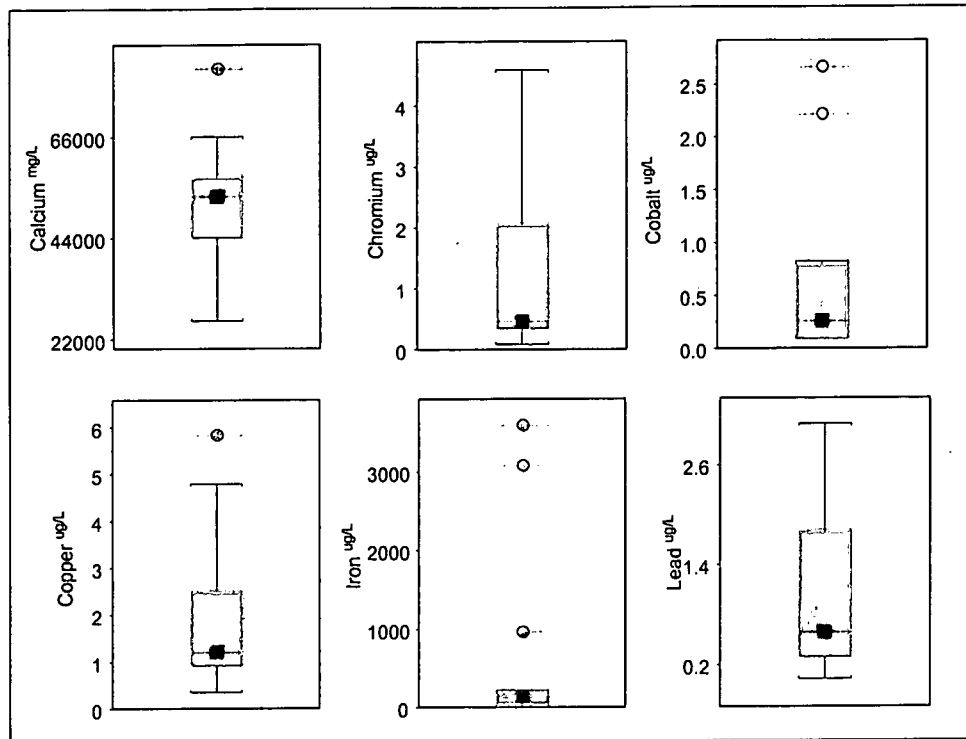


Figure 15-4. Total Metals Box Plots for Location GS01: Calcium through Lead.

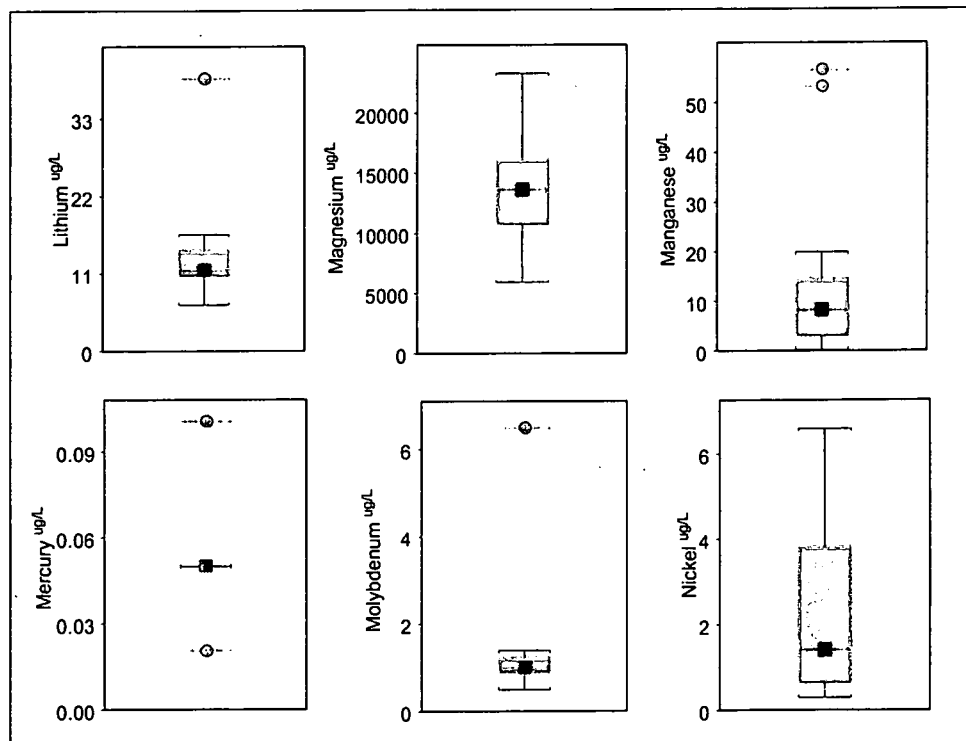


Figure 15-5. Total Metals Box Plots for Location GS01: Lithium through Nickel.

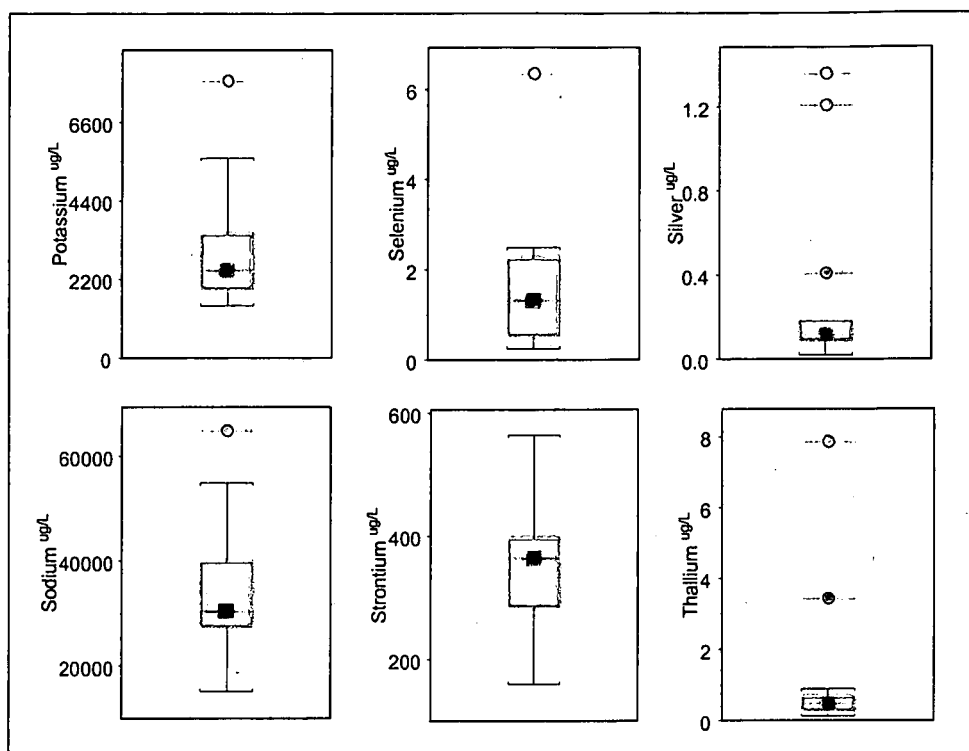


Figure 15-6. Total Metals Box Plots for Location GS01: Potassium through Thallium.

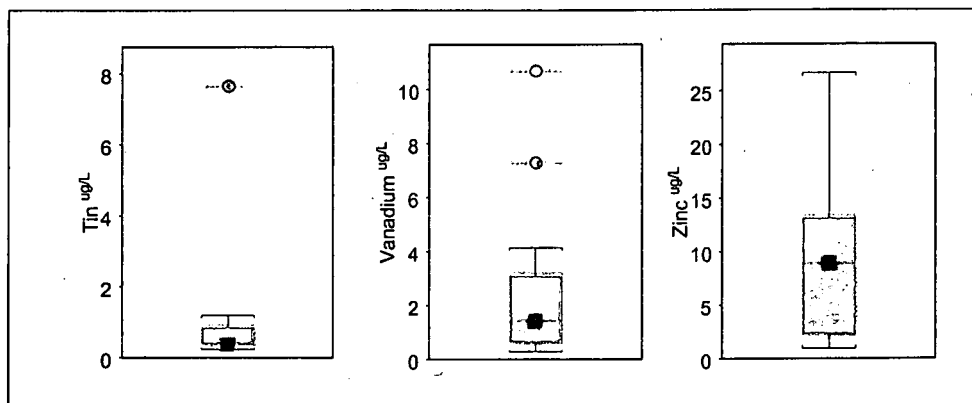


Figure 15-7. Total Metals Box Plots for Location GS01: Tin through Zinc.

15.3.2 Location GS02

Monitoring location GS02 is located on Mower Ditch at Indiana Street. Table 15-7 presents the analyte-specific summary statistics for BZ samples collected at GS02. Figure 15-8 through Figure 15-13 show the analyte-specific box plots for BZ samples collected at GS02. Figure 3-11 shows the drainage area for GS01. The splitter box at Woman Creek is normally configured so no Woman Cr. water enters Mower Ditch.

Table 15-7. BZ Summary Statistics for Analytical Results from GS02 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median	85 th Percentile	Maximum
TSS [mg/L]	5	0%	5.00	9.40	16.0
CHLORIDE [mg/L]	5	0%	44.0	62.3	86.0
FLUORIDE [mg/L]	5	0%	0.39	0.43	0.47
SULFATE [mg/L]	5	0%	28.7	74.8	140
TOTAL ALKALINITY [mg/L]	5	0%	153	170	170
TDS [mg/L]	5	0%	300	445	660
ALUMINUM [µg/L]	5	0%	330	656	837
ANTIMONY [µg/L]	5	100%	0.43	10.9	10.9
ARSENIC [µg/L]	5	60%	1.50	1.95	1.95
BARIUM [µg/L]	5	0%	89.8	122	151
BERYLLIUM [µg/L]	4	75%	0.58	0.75	0.75
CADMIUM [µg/L]	5	60%	0.10	2.50	2.50
CALCIUM [µg/L]	5	0%	54500	61980	66900
CHROMIUM [µg/L]	5	60%	1.90	2.40	2.40
COBALT [µg/L]	5	100%	0.45	2.65	2.65
COPPER [µg/L]	5	60%	1.10	1.22	1.40
IRON [µg/L]	5	0%	223	433	569
LEAD [µg/L]	5	60%	1.50	1.94	2.60
LITHIUM [µg/L]	3	0%	14.3	18.9	20.8
MAGNESIUM [µg/L]	5	0%	11500	14320	16000
MANGANESE [µg/L]	5	40%	3.30	6.86	7.40
MERCURY [µg/L]	5	100%	0.05	0.10	0.10
MOLYBDENUM [µg/L]	3	33%	1.10	4.85	6.45
NICKEL [µg/L]	5	60%	2.10	6.60	6.60
POTASSIUM [µg/L]	5	0%	3410	5594	8270
SELENIUM [µg/L]	5	40%	1.40	1.85	1.85
SILVER [µg/L]	5	40%	0.32	1.97	2.90
SODIUM [µg/L]	5	0%	30800	41100	56100
STRONTIUM [µg/L]	3	0%	337	410	441
THALLIUM [µg/L]	5	100%	0.23	2.25	2.25
TIN [µg/L]	3	100%	1.05	5.64	7.60
VANADIUM [µg/L]	5	20%	2.80	3.58	4.00
ZINC [µg/L]	5	40%	4.50	7.66	10.9

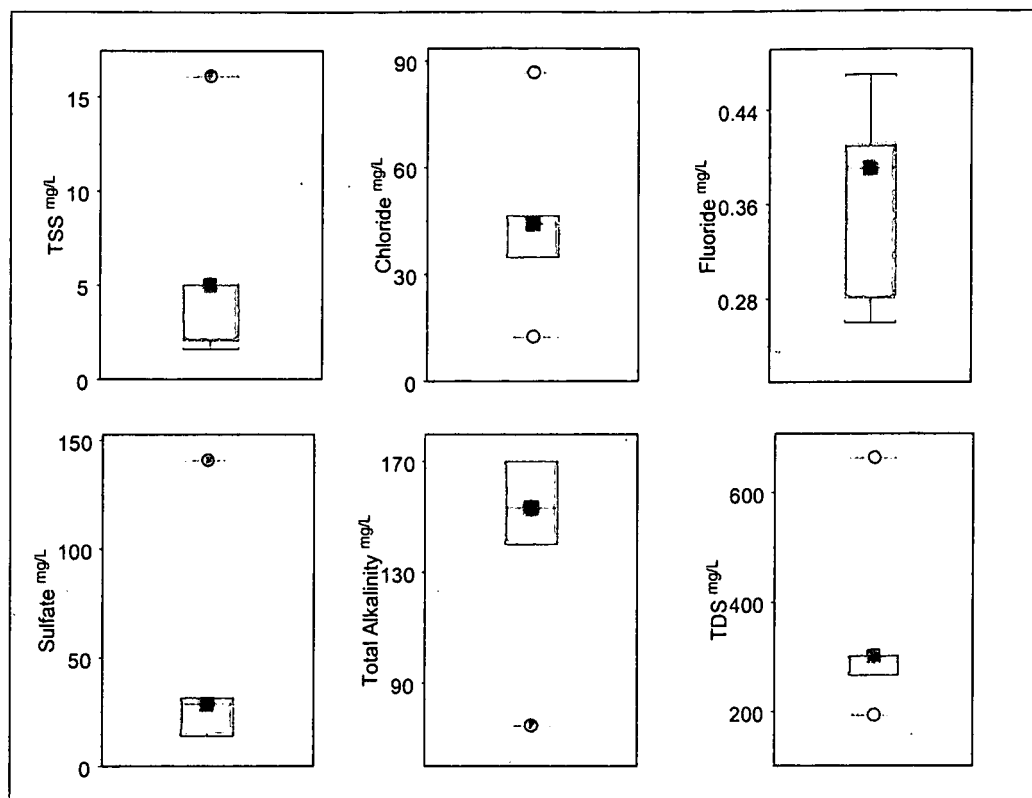


Figure 15-8. Water-Quality Parameter Box Plots for Location GS02.

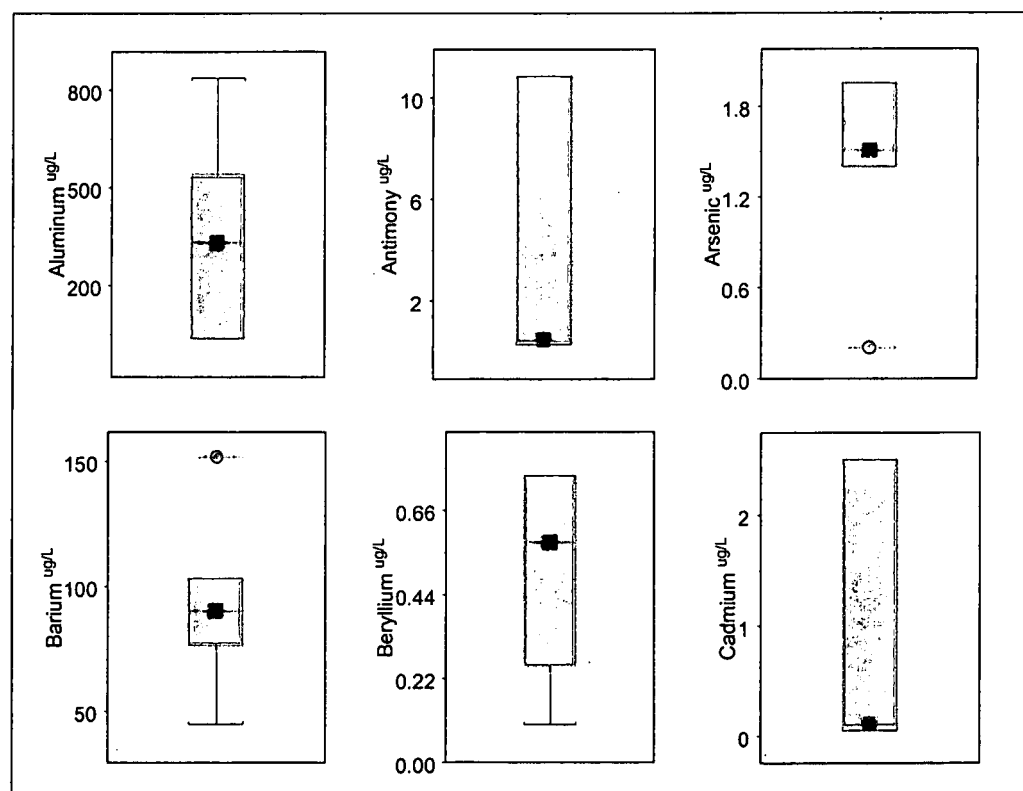


Figure 15-9. Total Metals Box Plots for Location GS02: Aluminum through Cadmium.

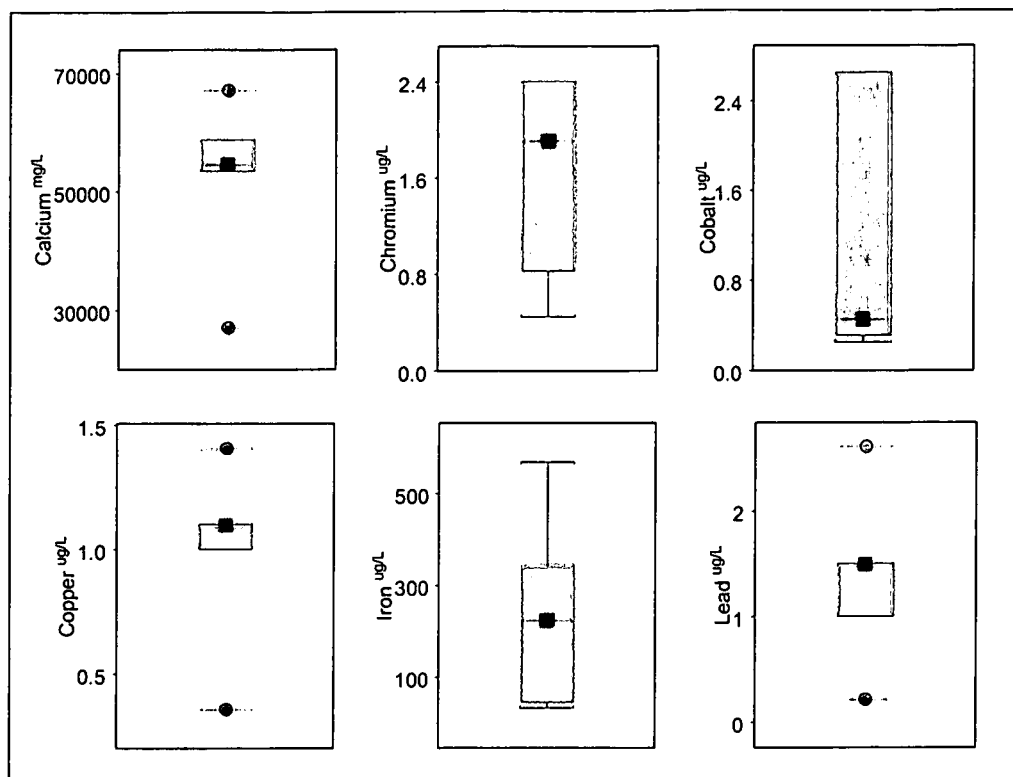


Figure 15-10. Total Metals Box Plots for Location GS02: Calcium through Lead.

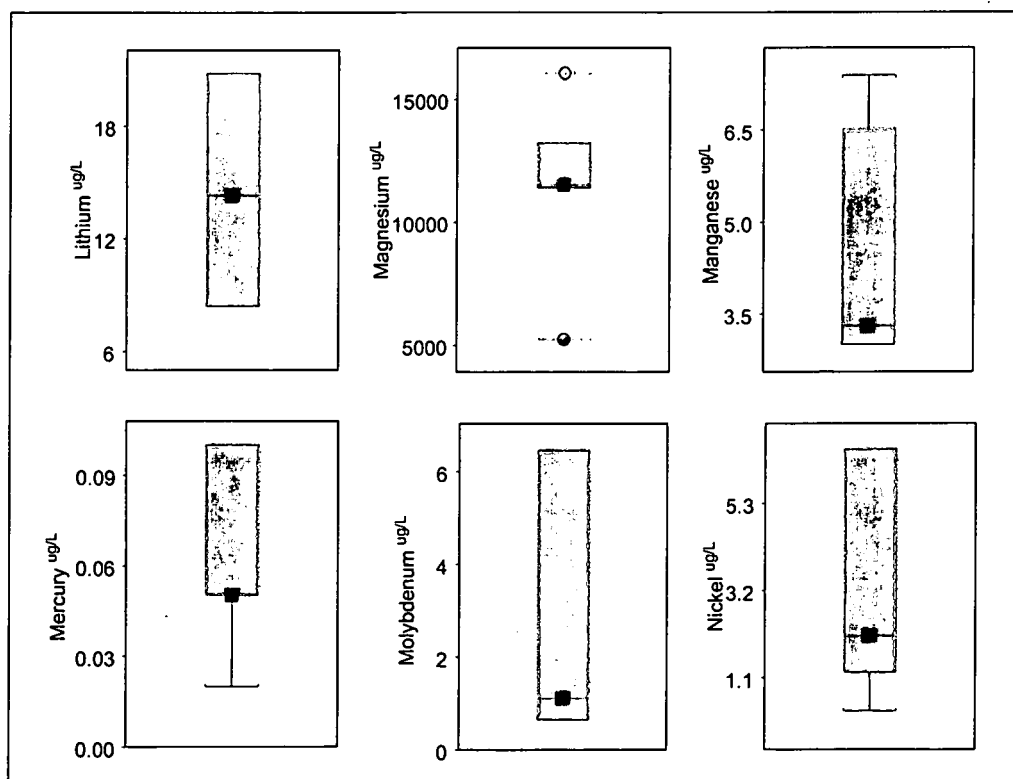


Figure 15-11. Total Metals Box Plots for Location GS02: Lithium through Nickel.

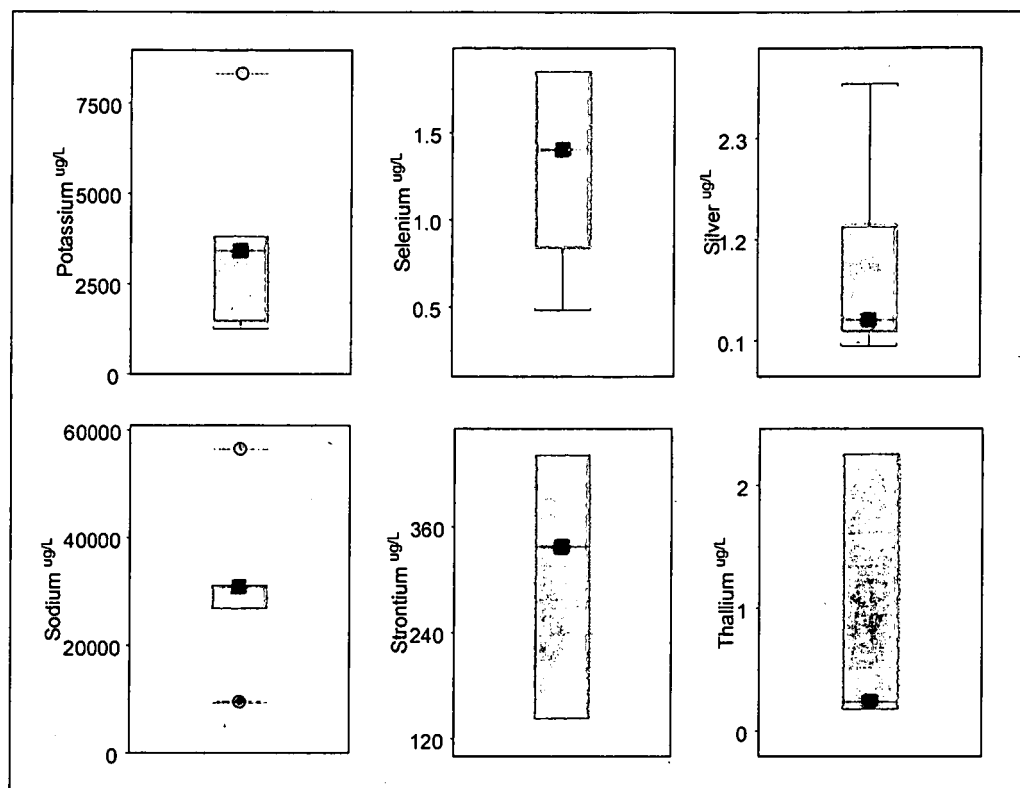


Figure 15-12. Total Metals Box Plots for Location GS02: Potassium through Thallium.

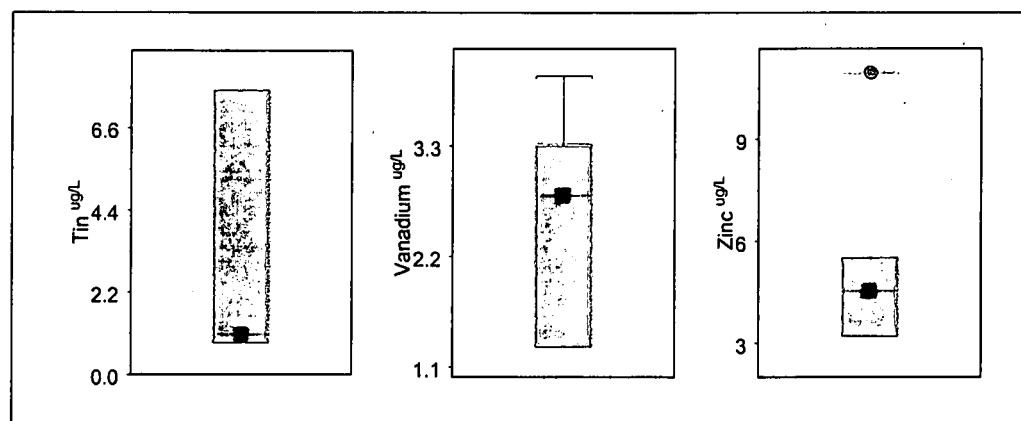


Figure 15-13. Total Metals Box Plots for Location GS02: Tin through Zinc.

15.3.3 Location GS03

Monitoring location GS03 is located on Walnut Cr. at Indiana Street. Table 15-8 presents the analyte-specific summary statistics for BZ samples collected at GS03. Figure 15-14 through Figure 15-19 show the analyte-specific box plots for BZ samples collected at GS03. Figure 3-14 shows the drainage area for GS03. The majority of the IA, Pond A-4, and Pond B-5 contribute flow to GS03.

Table 15-8. BZ Summary Statistics for Analytical Results from GS03 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median	85 th Percentile	Maximum
TSS [mg/L]	14	0%	28.2	50.6	160
CHLORIDE [mg/L]	13	0%	96.0	224	260
FLUORIDE [mg/L]	13	0%	0.37	0.43	0.64
SULFATE [mg/L]	13	0%	36.2	61.0	67.0
TOTAL ALKALINITY [mg/L]	12	0%	120	180	200
TDS [mg/L]	13	0%	430	572	680
ALUMINUM [µg/L]	13	0%	591	1714	6000
ANTIMONY [µg/L]	13	38%	0.79	1.18	11.2
ARSENIC [µg/L]	13	8%	1.40	2.92	8.50
BARIUM [µg/L]	13	0%	82.8	97.6	117
BERYLLIUM [µg/L]	13	46%	0.10	0.21	0.60
CADMIUM [µg/L]	13	62%	0.05	0.15	2.40
CALCIUM [µg/L]	13	0%	48200	57360	73100
CHROMIUM [µg/L]	13	8%	1.10	2.06	6.10
COBALT [µg/L]	13	31%	1.00	1.86	2.20
COPPER [µg/L]	13	31%	2.40	3.48	7.40
IRON [µg/L]	13	0%	664	1270	3950
LEAD [µg/L]	13	23%	1.40	2.78	3.50
LITHIUM [µg/L]	12	0%	25.0	28.5	31.3
MAGNESIUM [µg/L]	13	0%	11700	15560	16000
MANGANESE [µg/L]	13	0%	104	238	526
MERCURY [µg/L]	13	100%	0.05	0.05	0.10
MOLYBDENUM [µg/L]	12	8%	2.80	6.71	8.60
NICKEL [µg/L]	13	15%	3.20	4.88	6.45
POTASSIUM [µg/L]	13	0%	6310	8298	9980
SELENIUM [µg/L]	13	69%	0.55	1.07	2.25
SILVER [µg/L]	13	69%	0.18	0.37	2.80
SODIUM [µg/L]	13	0%	54700	102600	125000
STRONTIUM [µg/L]	12	0%	300	382	444
THALLIUM [µg/L]	13	100%	0.46	0.70	2.60
TIN [µg/L]	12	100%	0.44	1.10	7.60
VANADIUM [µg/L]	13	0%	2.90	7.62	14.0
ZINC [µg/L]	13	0%	9.30	13.4	37.7

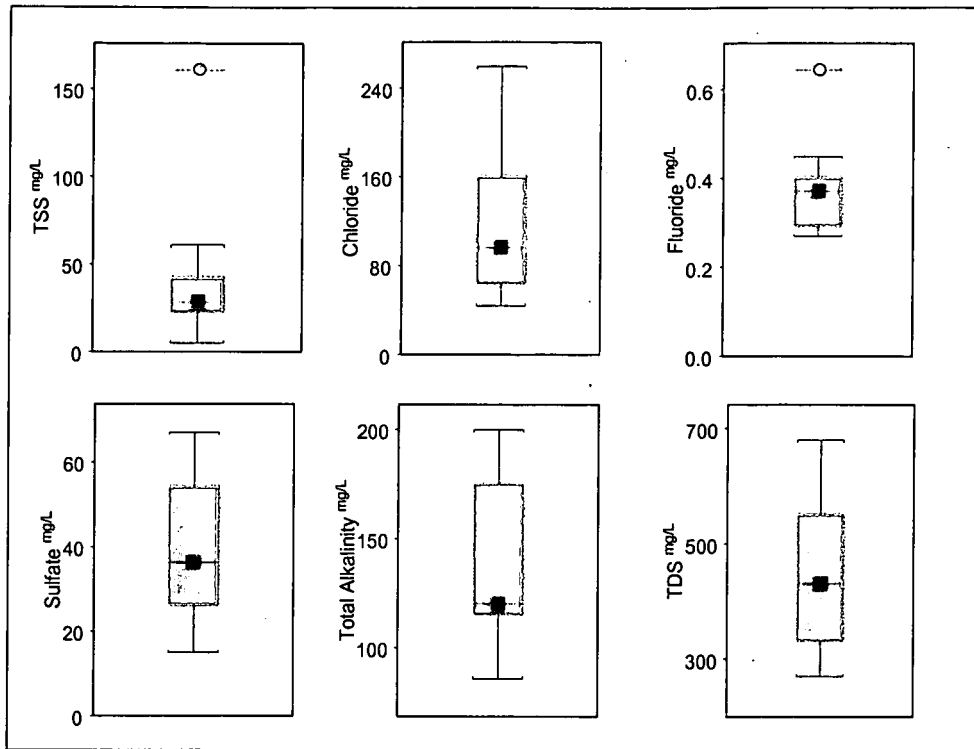


Figure 15-14. Water-Quality Parameter Box Plots for Location GS03.

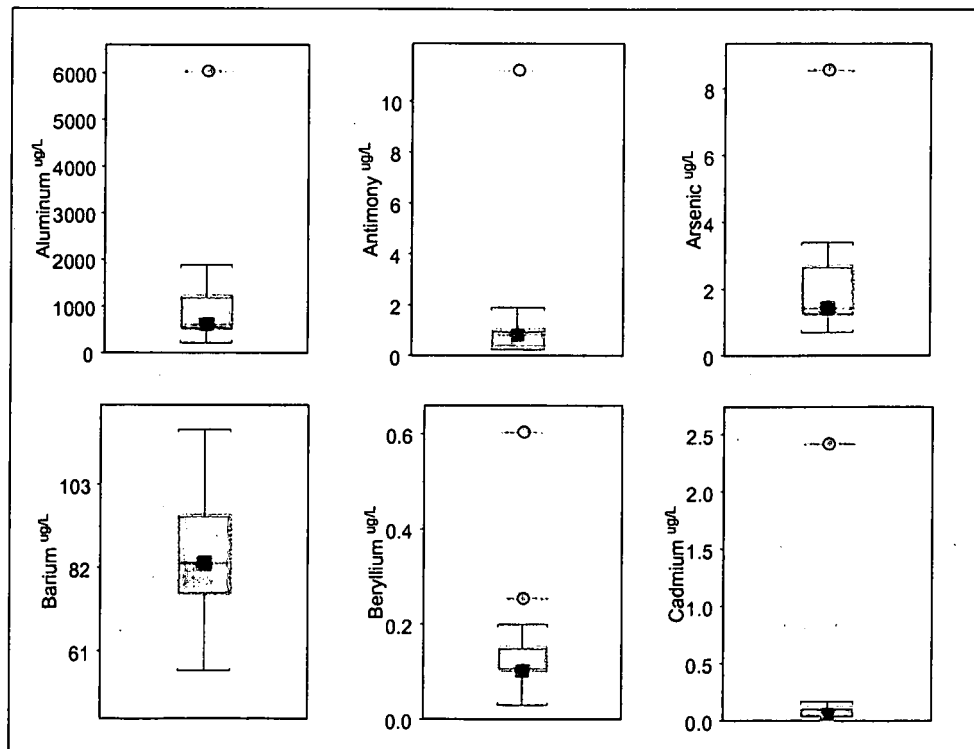


Figure 15-15. Total Metals Box Plots for Location GS03: Aluminum through Cadmium.

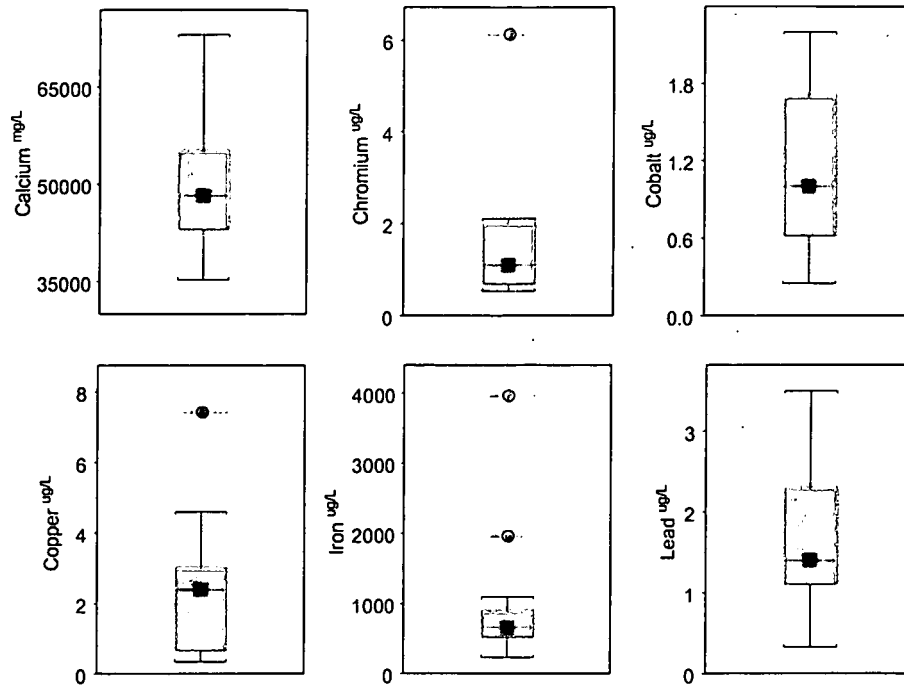


Figure 15-16. Total Metals Box Plots for Location GS03: Calcium through Lead.

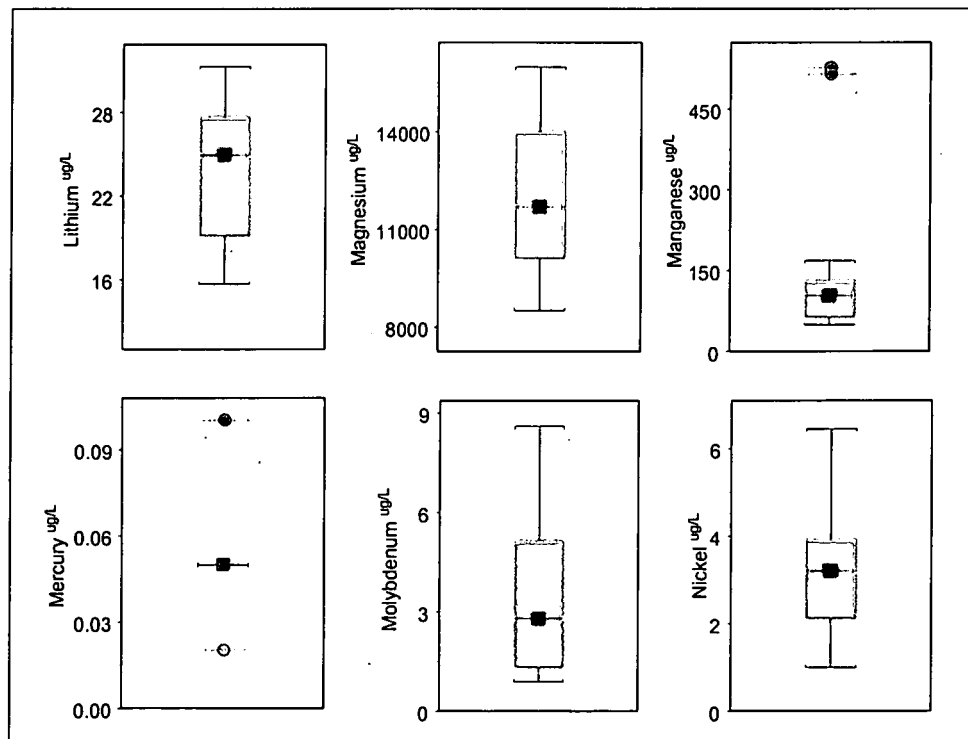


Figure 15-17. Total Metals Box Plots for Location GS03: Lithium through Nickel.

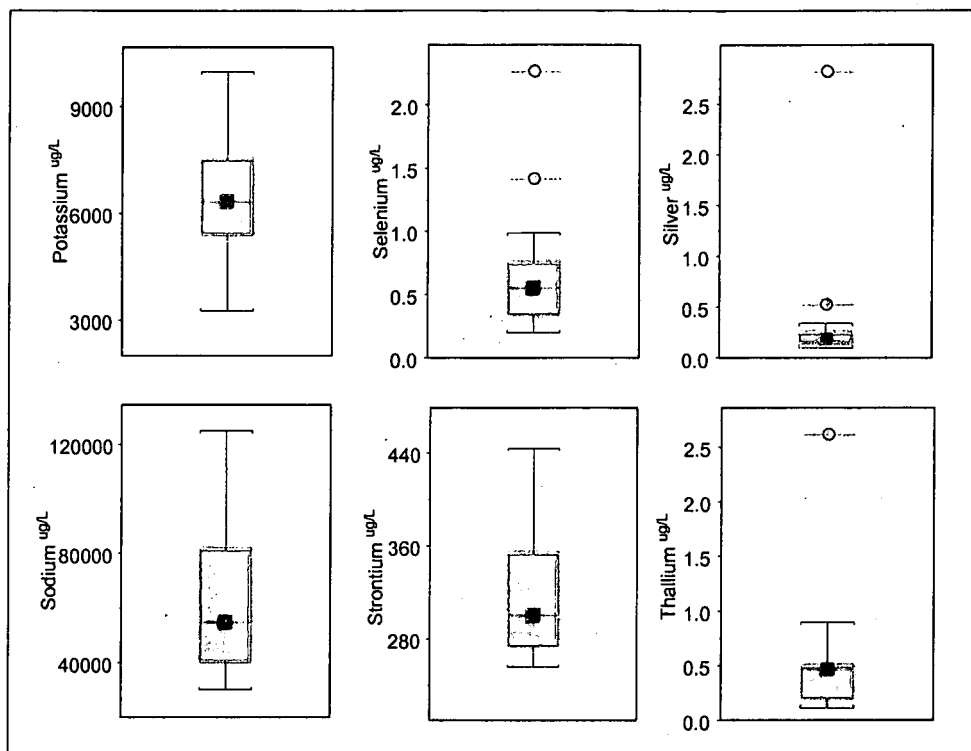


Figure 15-18. Total Metals Box Plots for Location GS03: Potassium through Thallium.

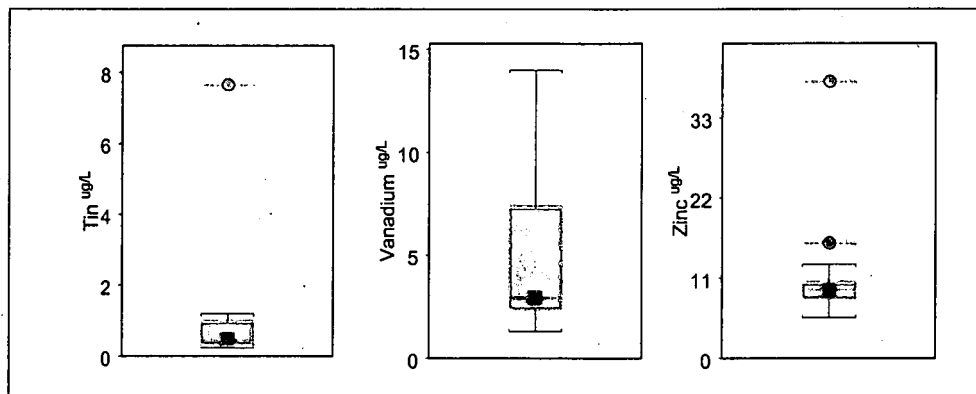


Figure 15-19. Total Metals Box Plots for Location GS03: Tin through Zinc.

15.3.4 Location GS04

Monitoring location GS04 is located on Rock Cr. at Route 128. Table 15-9 presents the analyte-specific summary statistics for BZ samples collected at GS04. Figure 15-20 through Figure 15-25 show the analyte-specific box plots for BZ samples collected at GS04. Figure 3-17 shows the drainage area for GS04.

Table 15-9. BZ Summary Statistics for Analytical Results from GS04 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median	85 th Percentile	Maximum
TSS [mg/L]	16	44%	7.20	68.0	220
CHLORIDE [mg/L]	16	0%	13.5	20.0	36.0
FLUORIDE [mg/L]	16	0%	0.36	0.40	0.52
SULFATE [mg/L]	16	0%	31.1	38.8	40.0
TOTAL ALKALINITY [mg/L]	13	0%	110	134	170
TDS [mg/L]	16	0%	240	270	290
ALUMINUM [µg/L]	16	0%	227	3810	11600
ANTIMONY [µg/L]	16	56%	0.54	10.9	11.2
ARSENIC [µg/L]	16	50%	1.70	2.65	3.90
BARIUM [µg/L]	16	0%	82.8	107	132
BERYLLIUM [µg/L]	16	44%	0.10	0.60	0.75
CADMIUM [µg/L]	16	81%	0.05	2.40	2.50
CALCIUM [µg/L]	16	0%	35800	45000	48100
CHROMIUM [µg/L]	16	44%	2.23	4.95	13.0
COBALT [µg/L]	16	56%	0.52	2.54	3.20
COPPER [µg/L]	16	31%	2.15	4.40	7.70
IRON [µg/L]	16	0%	265	2963	8100
LEAD [µg/L]	16	38%	1.65	2.55	7.30
LITHIUM [µg/L]	12	0%	12.9	15.0	113
MAGNESIUM [µg/L]	16	0%	8195	10100	10800
MANGANESE [µg/L]	16	13%	15.0	61.8	103
MERCURY [µg/L]	16	100%	0.05	0.10	0.10
MOLYBDENUM [µg/L]	12	33%	0.62	1.38	6.45
NICKEL [µg/L]	16	31%	3.10	6.56	11.1
POTASSIUM [µg/L]	16	0%	1985	3835	8200
SELENIUM [µg/L]	16	69%	0.60	2.25	3.10
SILVER [µg/L]	16	75%	0.18	1.20	1.35
SODIUM [µg/L]	16	0%	20050	27300	29400
STRONTIUM [µg/L]	12	0%	194	268	294
THALLIUM [µg/L]	16	81%	0.44	2.51	8.00
TIN [µg/L]	12	92%	0.47	1.57	7.60
VANADIUM [µg/L]	16	31%	2.50	8.60	24.0
ZINC [µg/L]	16	13%	7.85	21.1	35.9

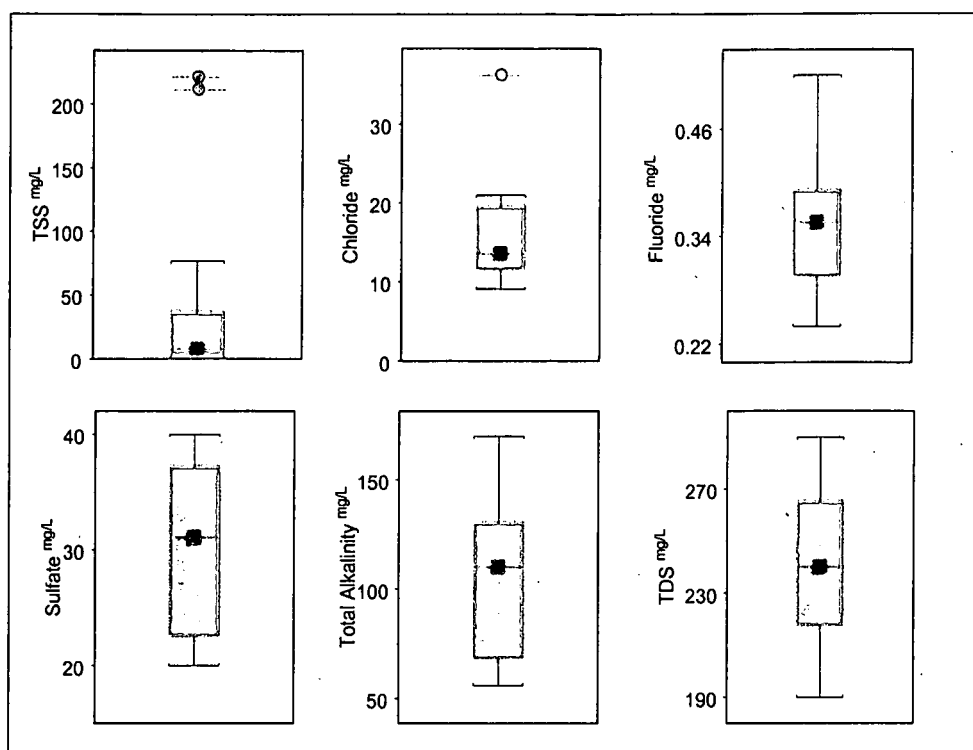


Figure 15-20. Water-Quality Parameter Box Plots for Location GS04.

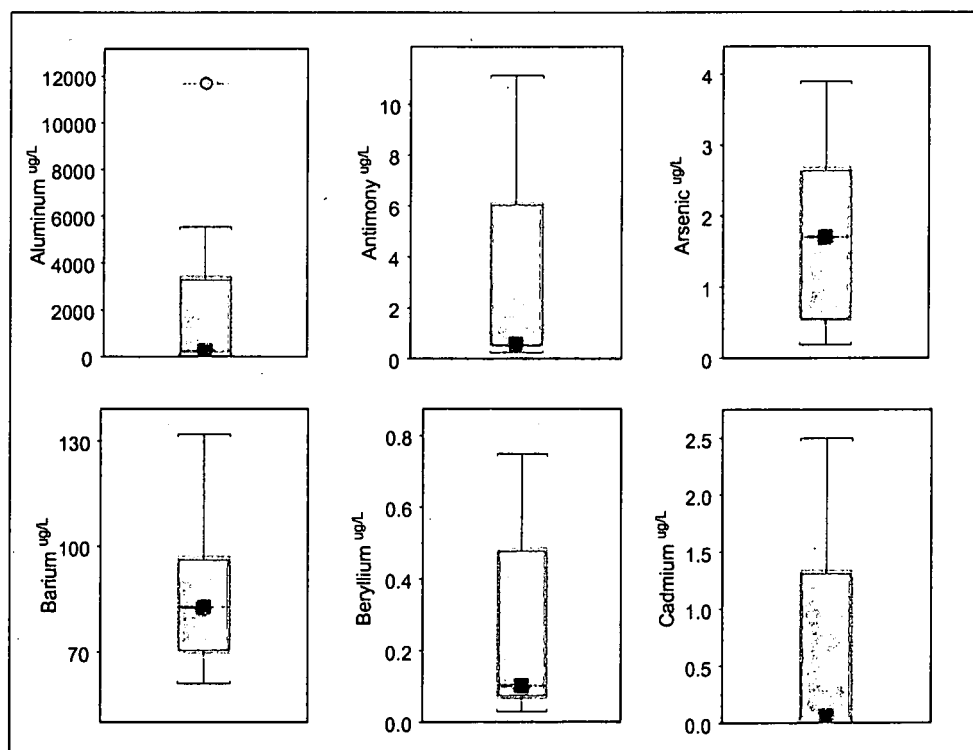


Figure 15-21. Total Metals Box Plots for Location GS04: Aluminum through Cadmium.

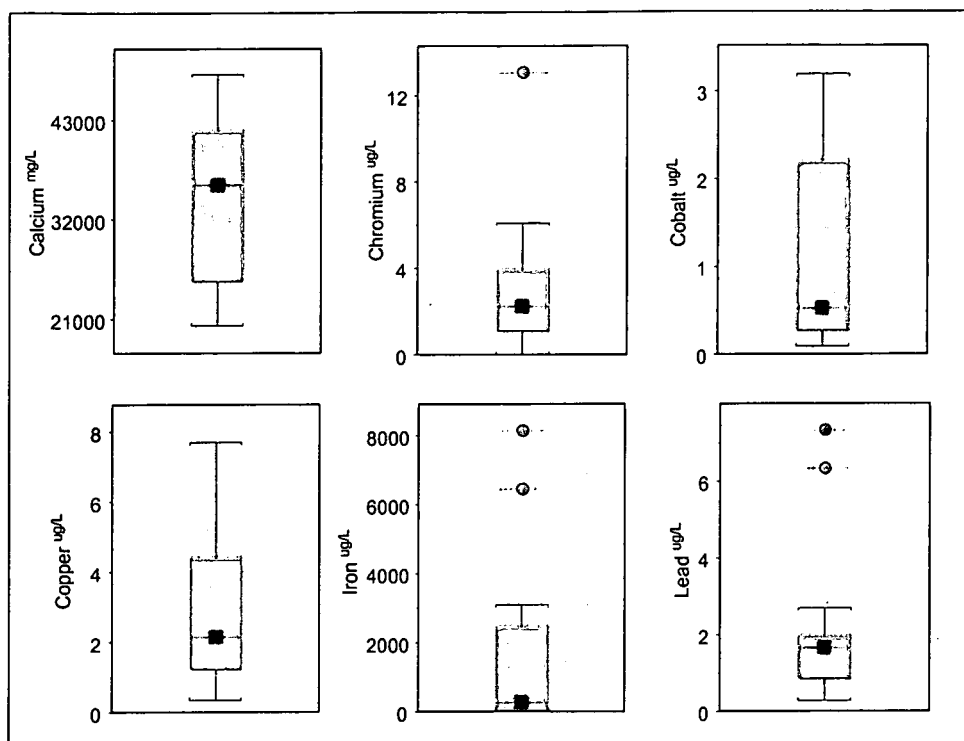


Figure 15-22. Total Metals Box Plots for Location GS04: Calcium through Lead.

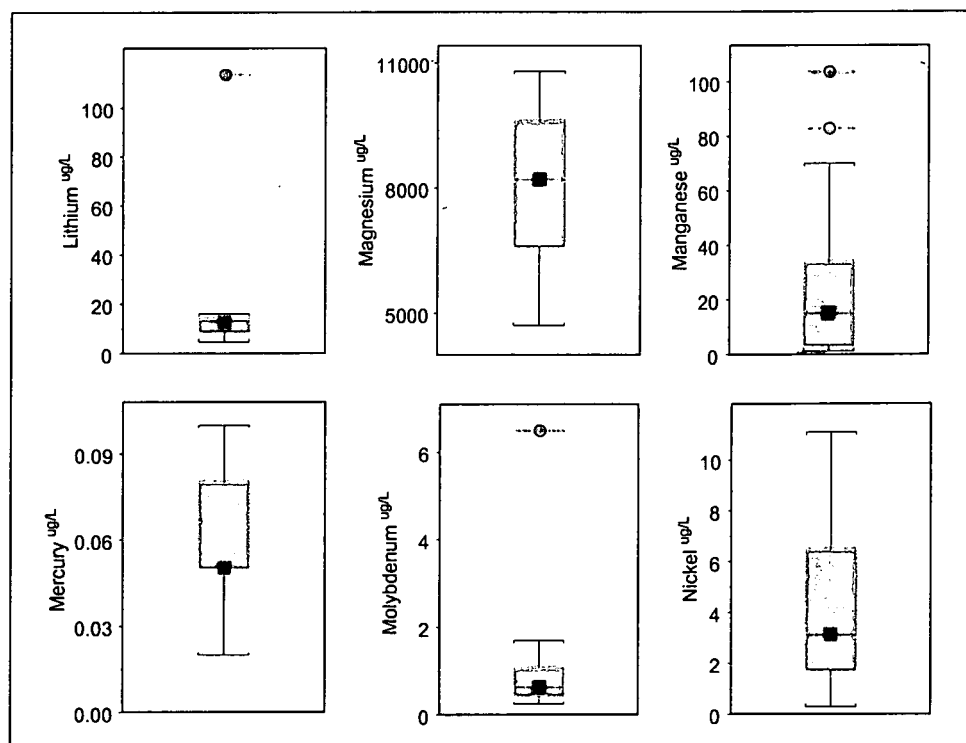


Figure 15-23. Total Metals Box Plots for Location GS04: Lithium through Nickel.

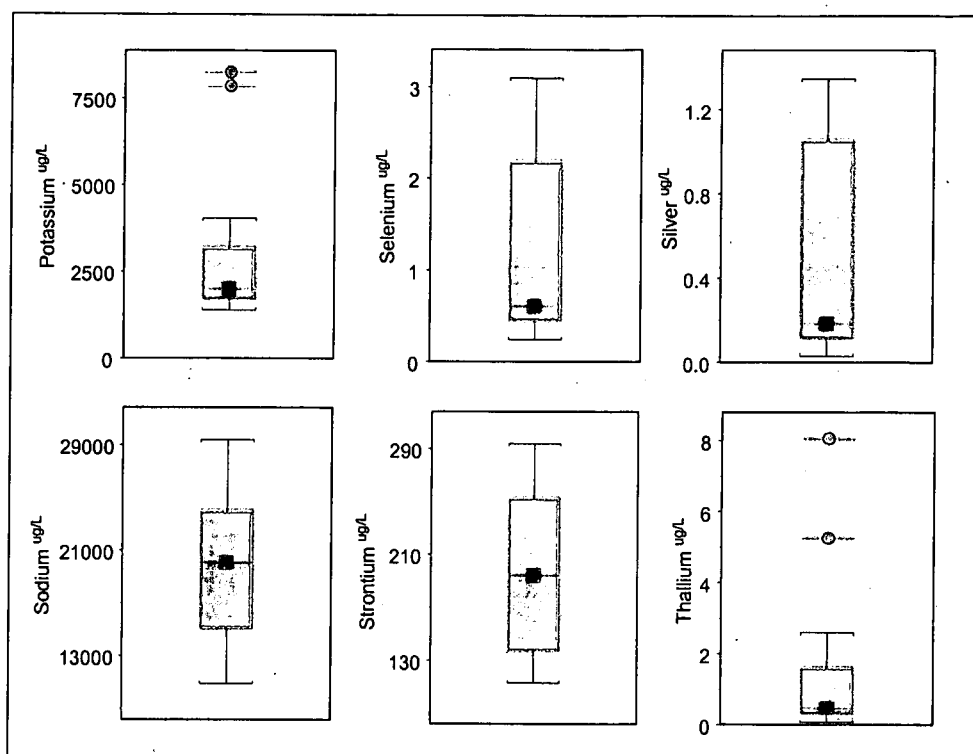


Figure 15-24. Total Metals Box Plots for Location GS04: Potassium through Thallium.

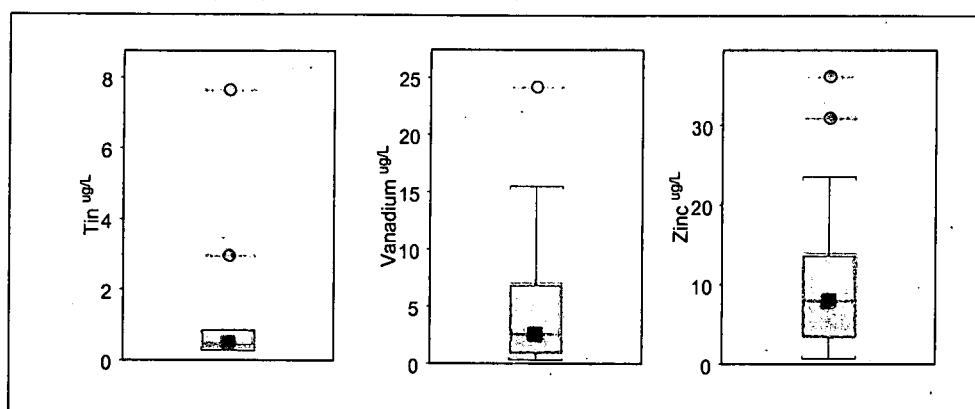


Figure 15-25. Total Metals Box Plots for Location GS04: Tin through Zinc.

15.3.5 Location GS05

Monitoring location GS05 is located on Woman Cr. at the west Site fenceline. Table 15-10 presents the analyte-specific summary statistics for BZ samples collected at GS05. Figure 15-26 through Figure 15-31 show the analyte-specific box plots for BZ samples collected at GS05. Figure 3-20 shows the drainage area for GS05.

Table 15-10. BZ Summary Statistics for Analytical Results from GS05 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median	85 th Percentile	Maximum
TSS [mg/L]	19	0%	106.0	2010	7900
CHLORIDE [mg/L]	19	0%	19.0	42.8	170
FLUORIDE [mg/L]	19	5%	0.20	0.28	0.37
SULFATE [mg/L]	19	0%	8.00	22.3	28.1
TOTAL ALKALINITY [mg/L]	18	0%	67.0	85.5	95.0
TDS [mg/L]	19	0%	230	442	690
ALUMINUM [µg/L]	19	0%	2840	102370	296000
ANTIMONY [µg/L]	18	56%	0.72	10.9	11.2
ARSENIC [µg/L]	19	26%	2.65	33.9	90.8
BARIUM [µg/L]	19	0%	101	457	1210
BERYLLIUM [µg/L]	18	33%	0.75	6.76	17.9
CADMIUM [µg/L]	19	58%	0.20	2.43	2.50
CALCIUM [µg/L]	19	0%	26400	39390	45000
CHROMIUM [µg/L]	19	16%	2.60	79.0	215
COBALT [µg/L]	19	21%	2.65	18.8	51.0
COPPER [µg/L]	19	16%	4.00	46.3	128
IRON [µg/L]	19	0%	2570	80590	228000
LEAD [µg/L]	19	21%	3.00	40.8	137
LITHIUM [µg/L]	15	0%	11.5	60.5	138
MAGNESIUM [µg/L]	19	0%	8500	13450	29400
MANGANESE [µg/L]	19	0%	171	1040	1480
MERCURY [µg/L]	19	68%	0.05	0.21	1.20
MOLYBDENUM [µg/L]	15	7%	1.00	2.27	6.45
NICKEL [µg/L]	19	21%	6.60	63.6	167
POTASSIUM [µg/L]	19	0%	2230	12670	23900
SELENIUM [µg/L]	19	53%	0.77	3.87	18.4
SILVER [µg/L]	19	63%	0.18	1.35	7.00
SODIUM [µg/L]	19	0%	16200	23740	62600
STRONTIUM [µg/L]	15	0%	169	304	315
THALLIUM [µg/L]	18	78%	0.65	2.60	2.60
TIN [µg/L]	15	53%	0.85	6.34	22.6
VANADIUM [µg/L]	19	11%	5.80	182	484
ZINC [µg/L]	19	5%	28.6	122	335

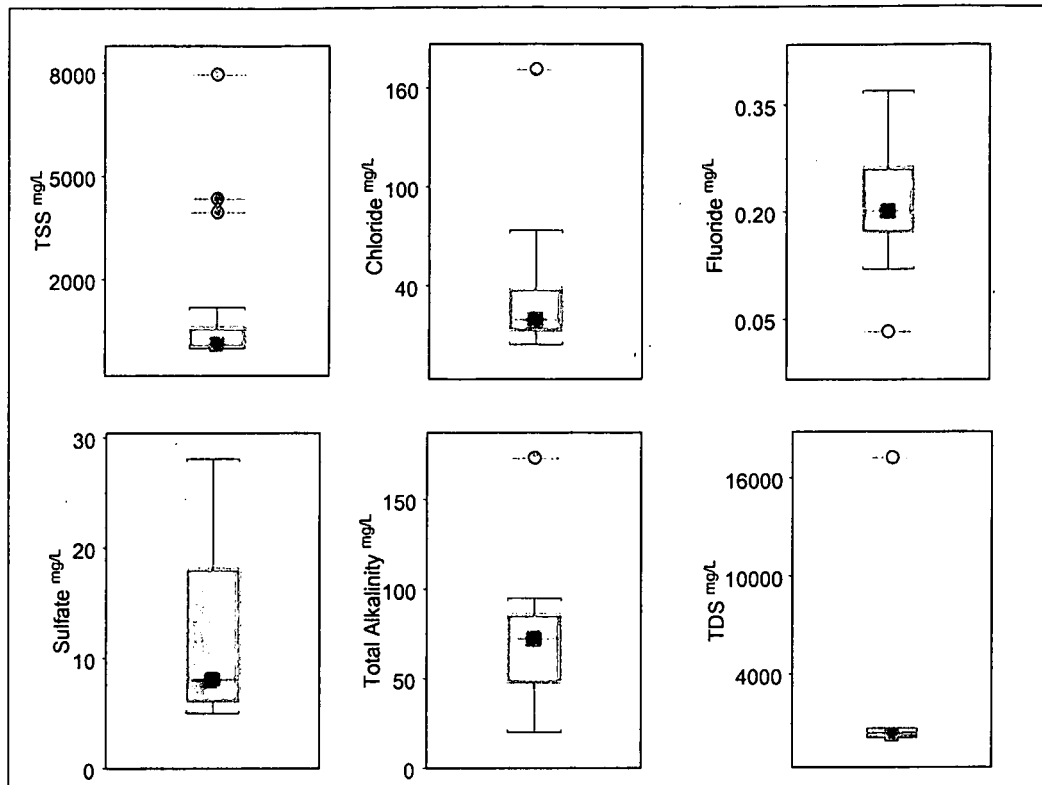


Figure 15-26. Water-Quality Parameter Box Plots for Location GS05.

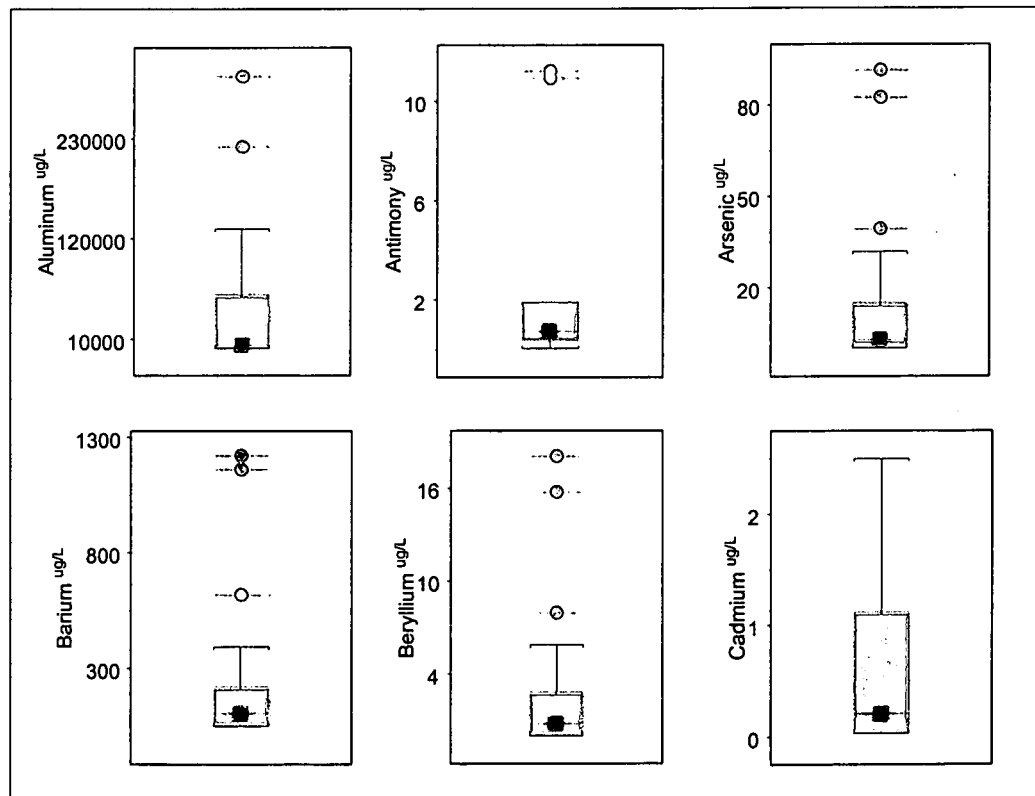


Figure 15-27. Total Metals Box Plots for Location GS05: Aluminum through Cadmium.

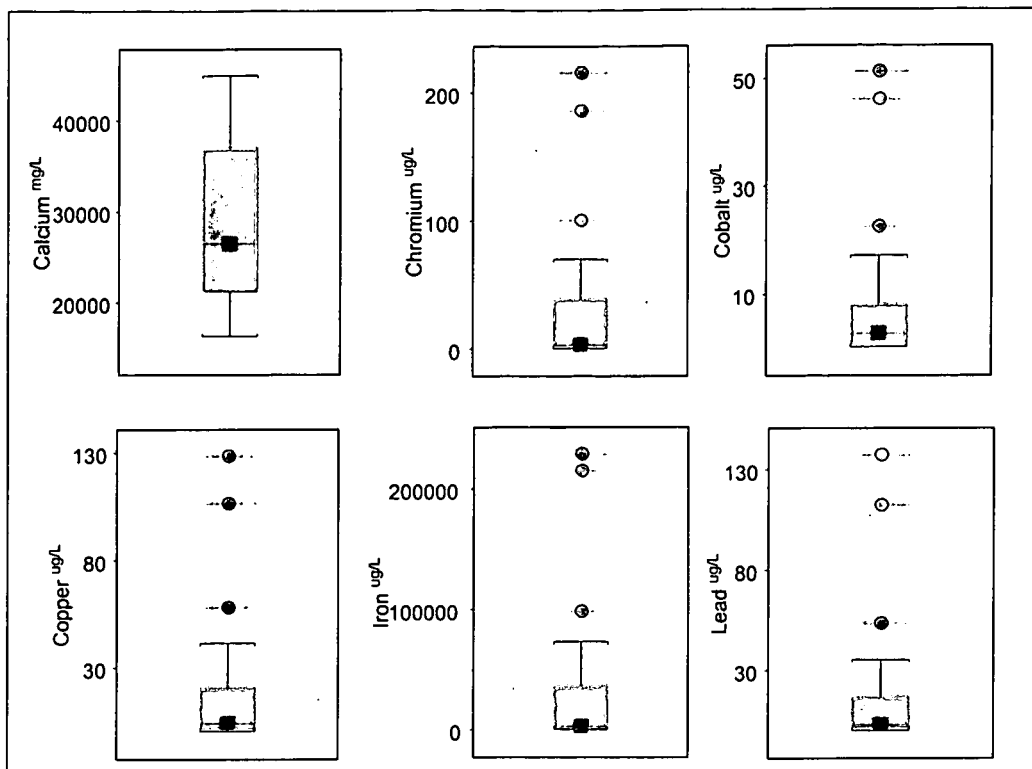


Figure 15-28. Total Metals Box Plots for Location GS05: Calcium through Lead.

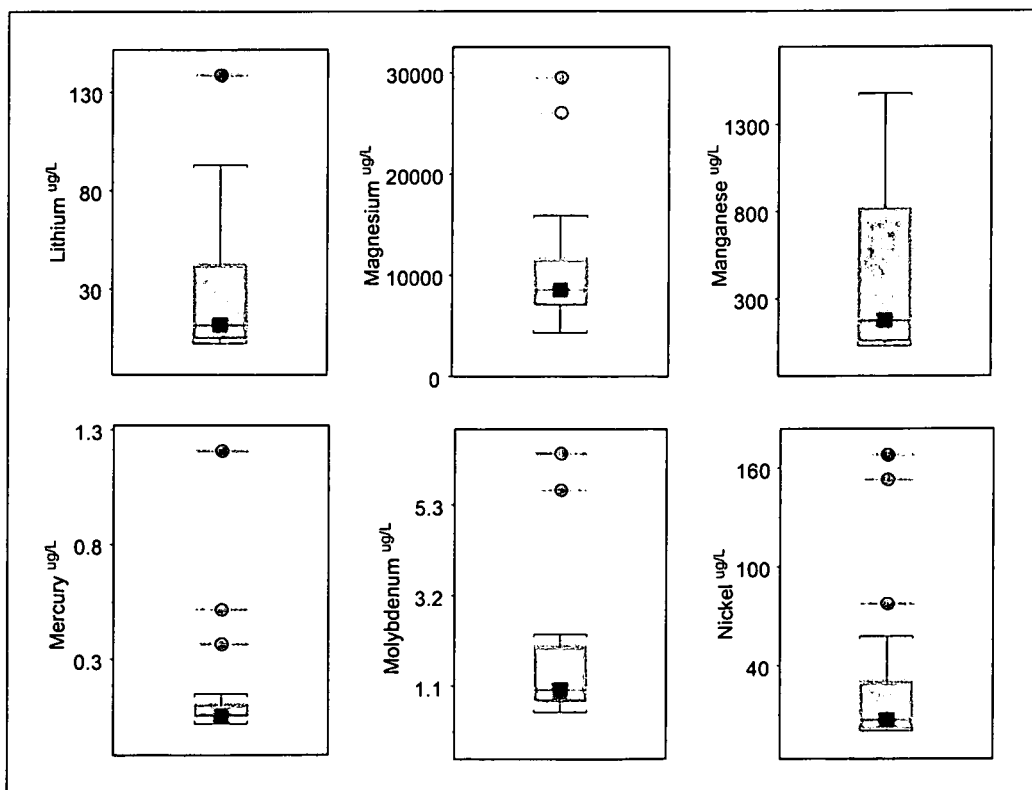


Figure 15-29. Total Metals Box Plots for Location GS05: Lithium through Nickel.

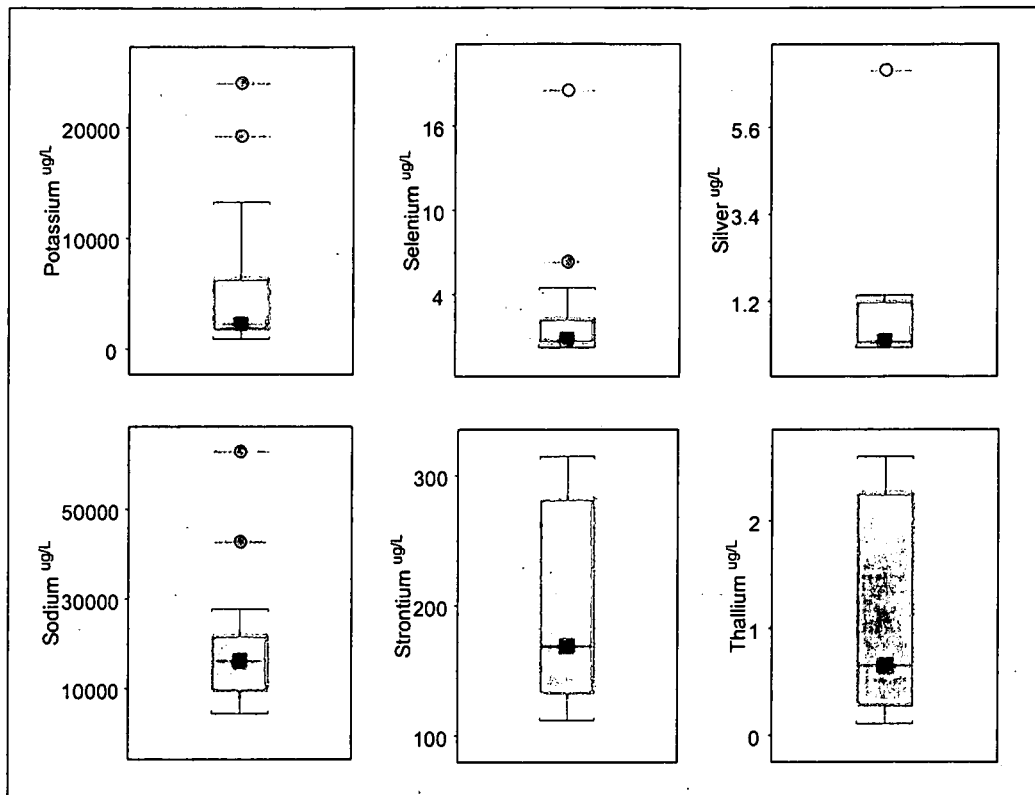


Figure 15-30. Total Metals Box Plots for Location GS05: Potassium through Thallium.

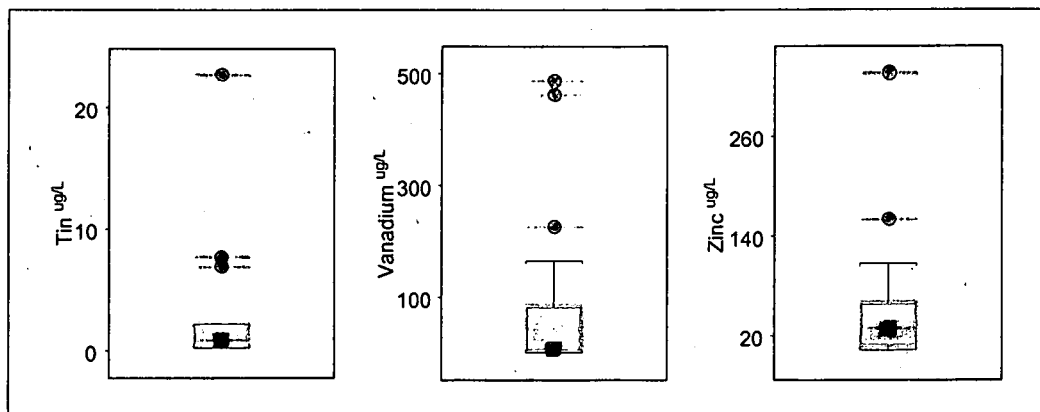


Figure 15-31. Total Metals Box Plots for Location GS05: Tin through Zinc.

15.3.6 Location GS06

Monitoring location GS06 is located on the Owl Branch to Woman Cr. at the west Site fenceline. Table 15-11 presents the analyte-specific summary statistics for BZ samples collected at GS06. Figure 15-32 through Figure 15-37 show the analyte-specific box plots for BZ samples collected at GS06. Figure 3-23 shows the drainage area for GS06.

Table 15-11. BZ Summary Statistics for Analytical Results from GS06 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median	85 th Percentile	Maximum
TSS [mg/L]	17	0%	600	7620	11000
CHLORIDE [mg/L]	17	0%	9.40	21.2	34.3
FLUORIDE [mg/L]	17	12%	0.13	0.26	0.46
SULFATE [mg/L]	17	6%	7.00	10.2	15.7
TOTAL ALKALINITY [mg/L]	17	0%	55.0	70.7	74.0
TDS [mg/L]	17	0%	190	272	632
ALUMINUM [µg/L]	17	0%	47100	149200	415000
ANTIMONY [µg/L]	16	50%	0.89	3.18	11.2
ARSENIC [µg/L]	17	6%	14.4	59.4	147
BARIUM [µg/L]	17	0%	291	979	2560
BERYLLIUM [µg/L]	17	24%	2.80	10.7	25.5
CADMIUM [µg/L]	16	31%	0.37	2.40	4.90
CALCIUM [µg/L]	17	0%	25100	32620	63900
CHROMIUM [µg/L]	17	0%	43.7	132	348
COBALT [µg/L]	17	6%	11.8	46.0	112
COPPER [µg/L]	17	6%	29.8	85.2	259
IRON [µg/L]	17	0%	39600	162400	398000
LEAD [µg/L]	17	6%	31.3	97.5	262
LITHIUM [µg/L]	15	7%	38.1	93.0	277
MAGNESIUM [µg/L]	17	0%	8140	21040	51900
MANGANESE [µg/L]	17	0%	942	2982	7770
MERCURY [µg/L]	17	53%	0.10	0.52	1.60
MOLYBDENUM [µg/L]	15	33%	2.80	6.40	6.45
NICKEL [µg/L]	17	12%	33.4	103	272
POTASSIUM [µg/L]	17	0%	9450	20560	50000
SELENIUM [µg/L]	17	41%	2.50	4.84	10.1
SILVER [µg/L]	17	76%	0.18	1.00	30.9
SODIUM [µg/L]	17	0%	8100	10496	16100
STRONTIUM [µg/L]	15	0%	131	226	494
THALLIUM [µg/L]	17	76%	0.65	2.00	2.90
TIN [µg/L]	15	53%	1.50	7.44	7.60
VANADIUM [µg/L]	17	0%	85.8	310	747
ZINC [µg/L]	17	0%	87.6	335	684

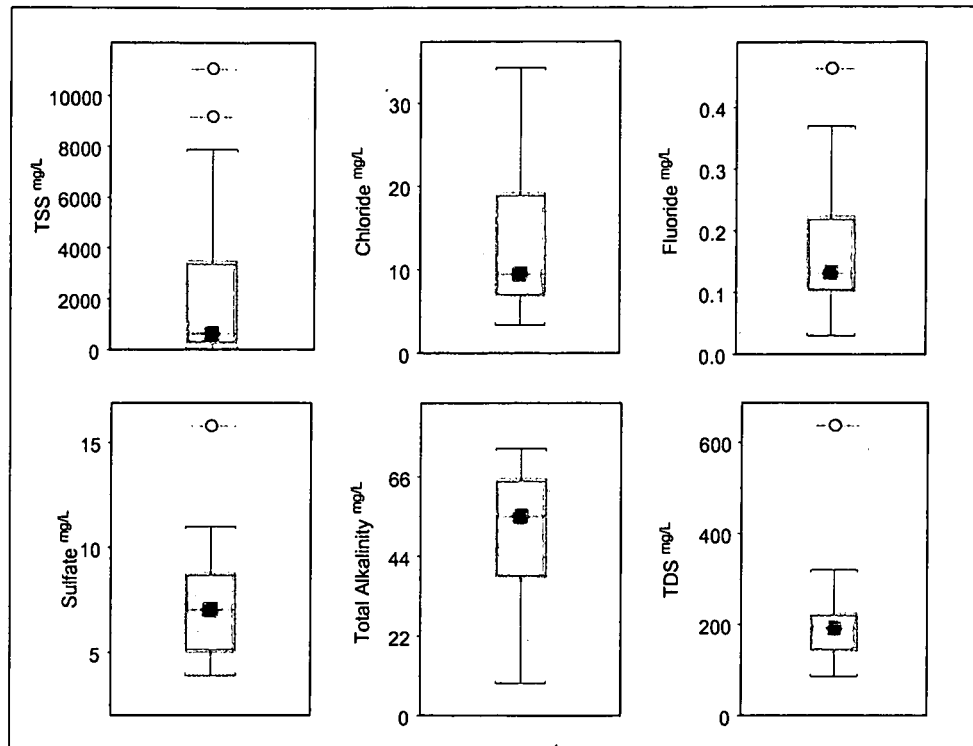


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

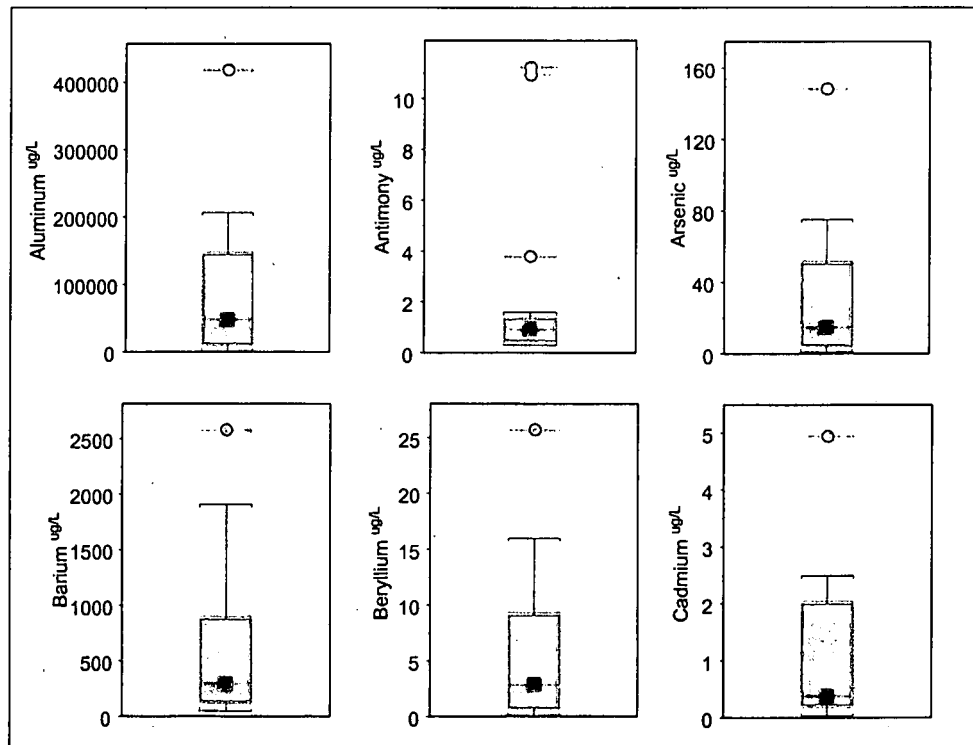


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

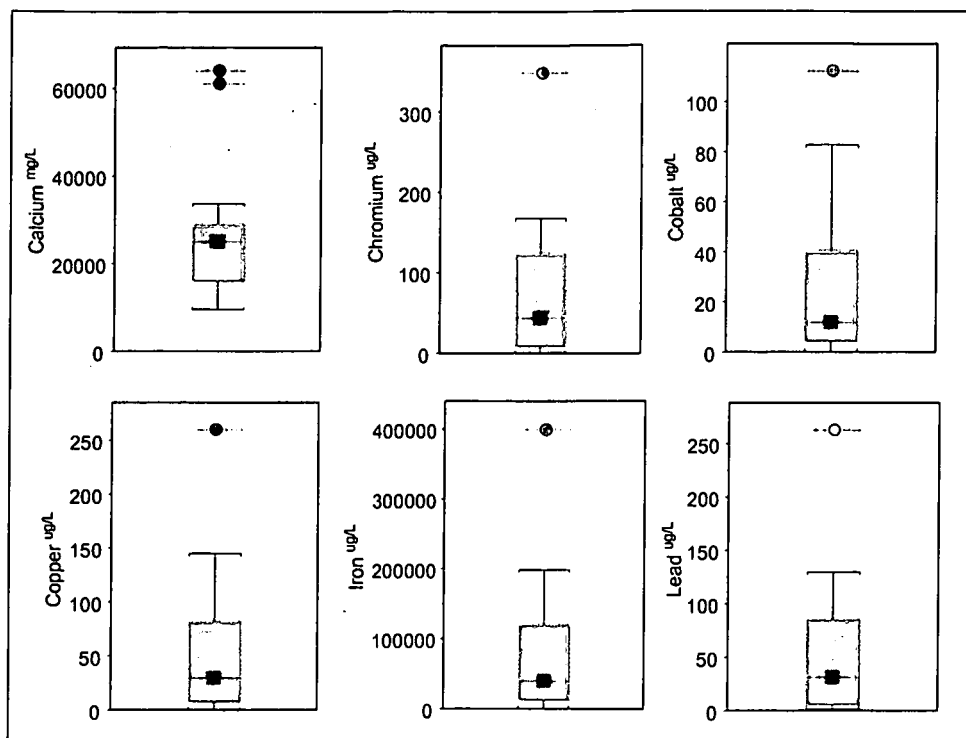


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

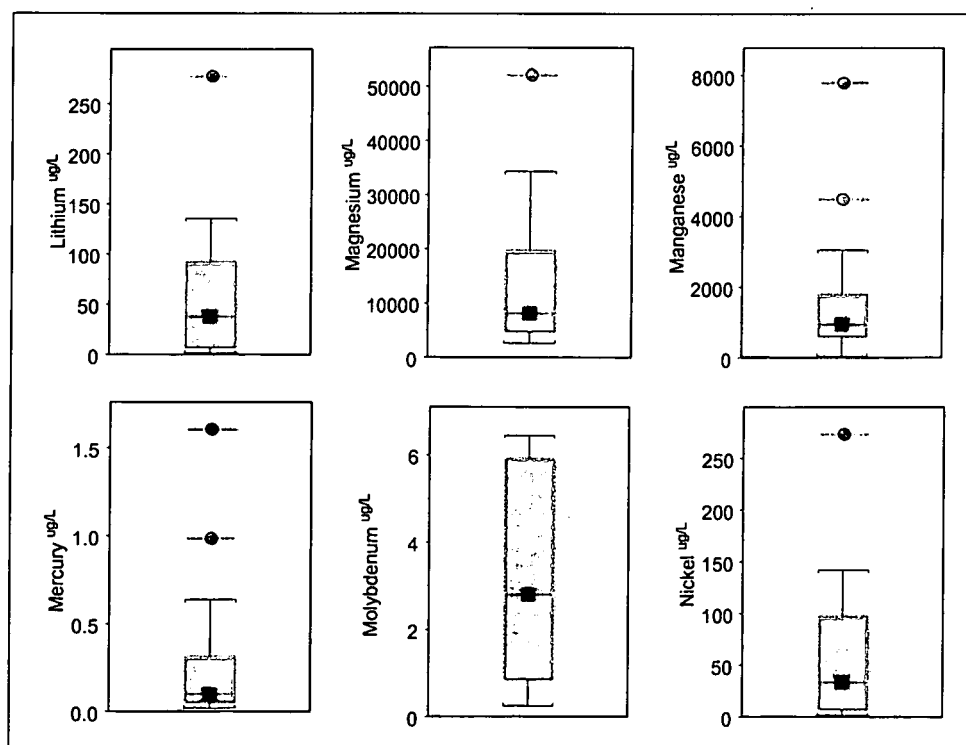


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

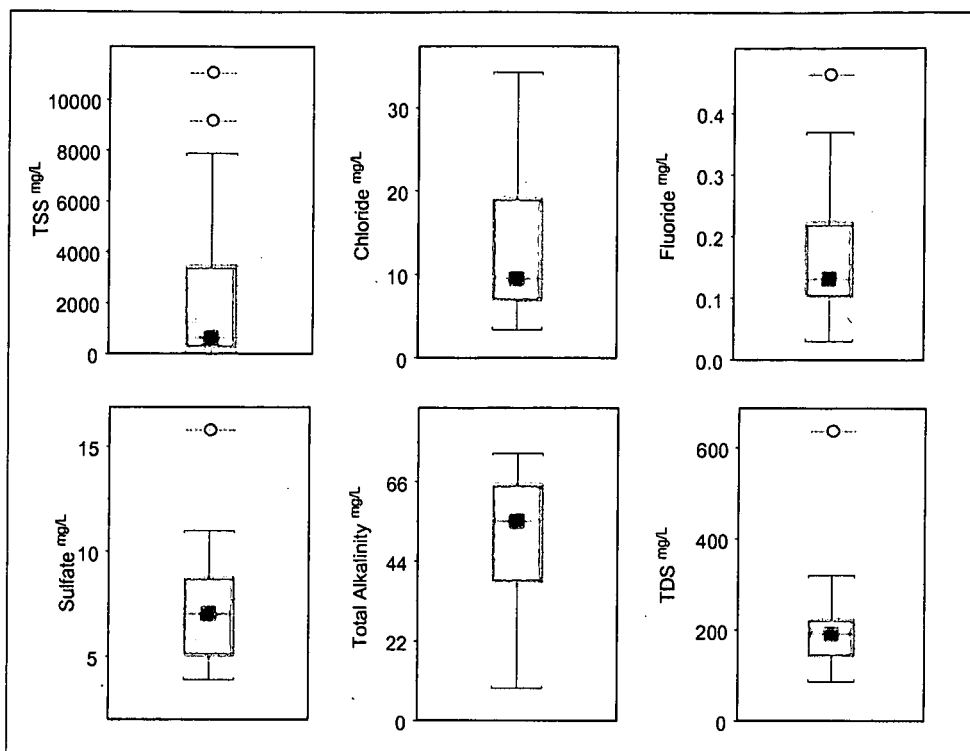


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

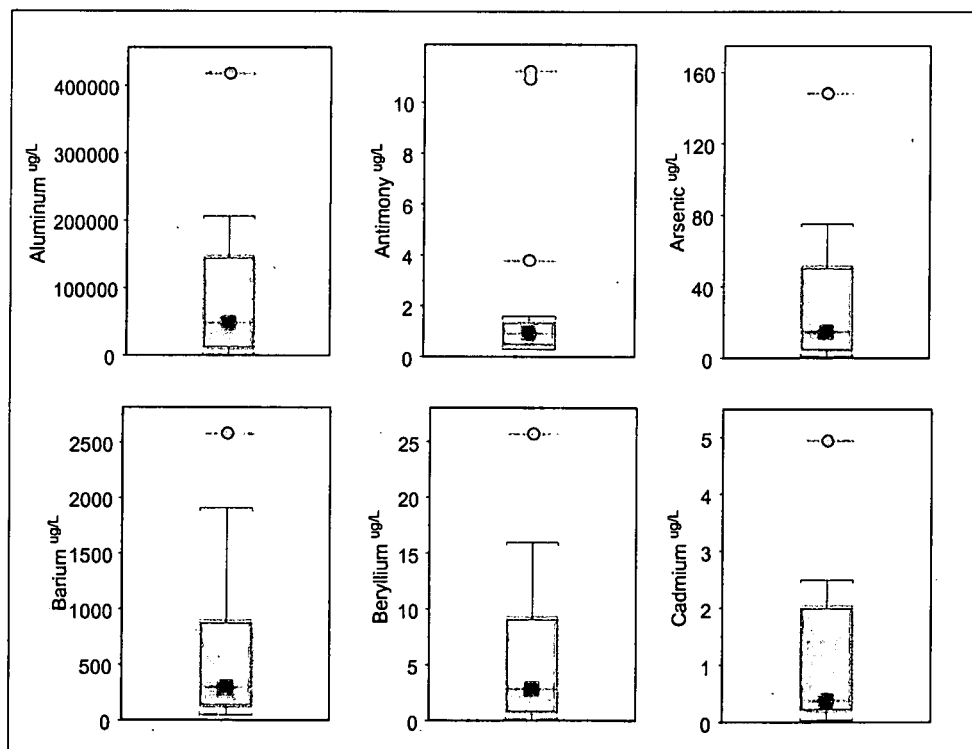


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

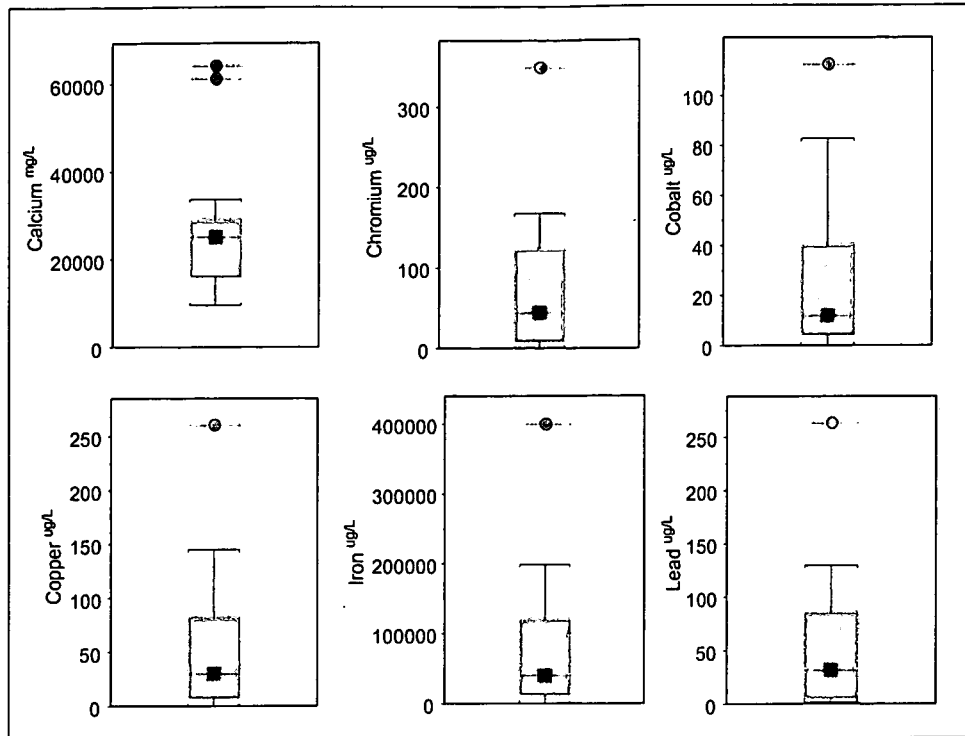


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

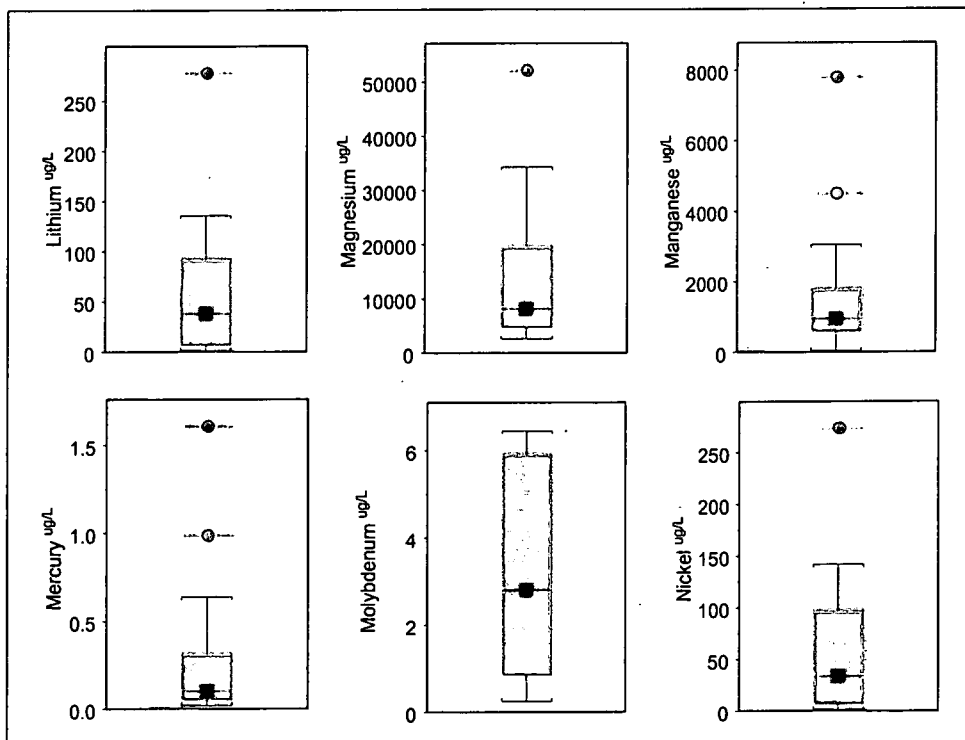


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

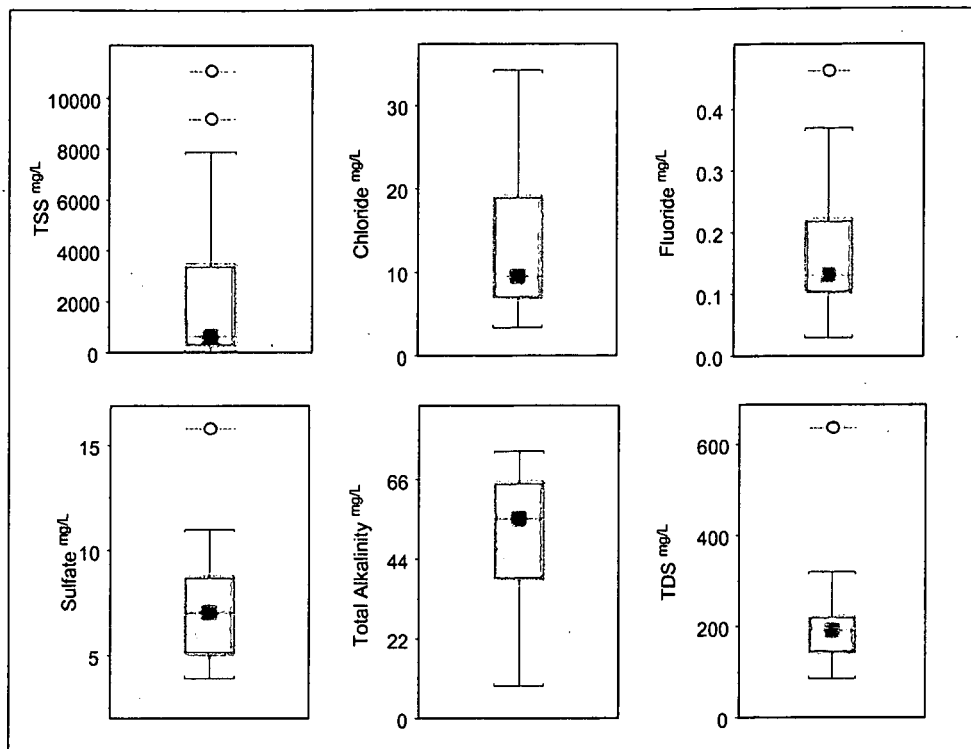


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

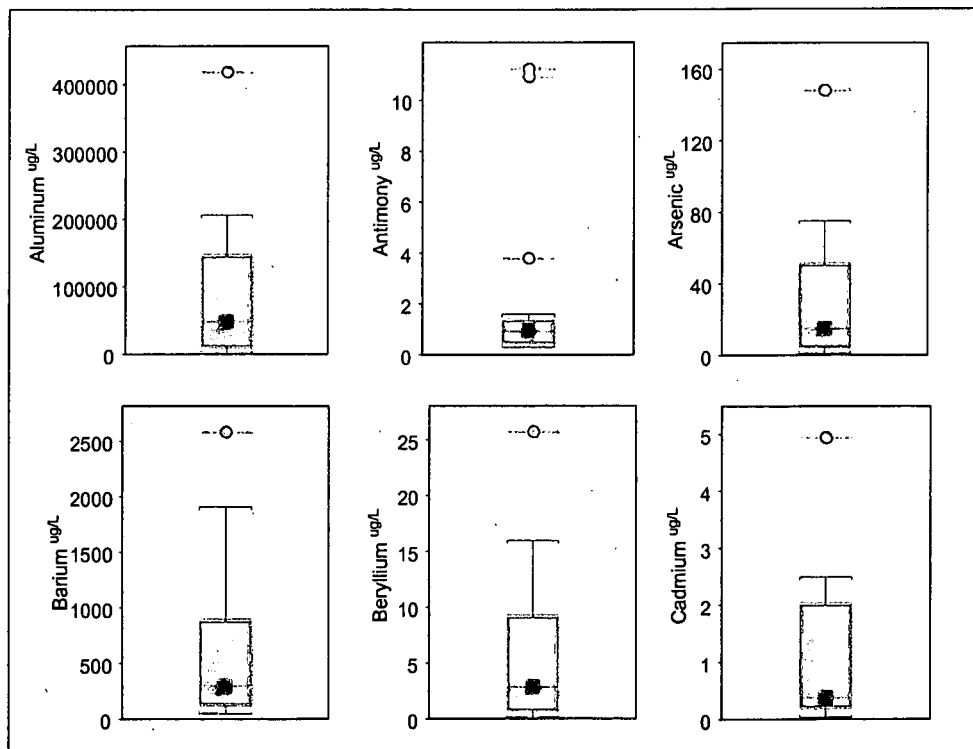


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

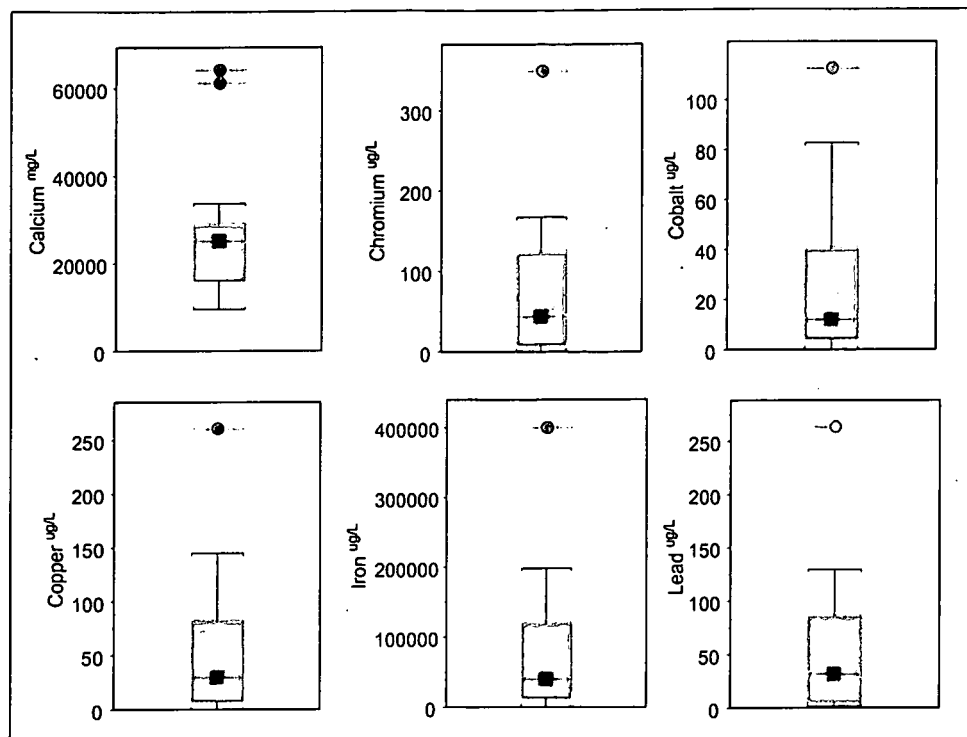


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

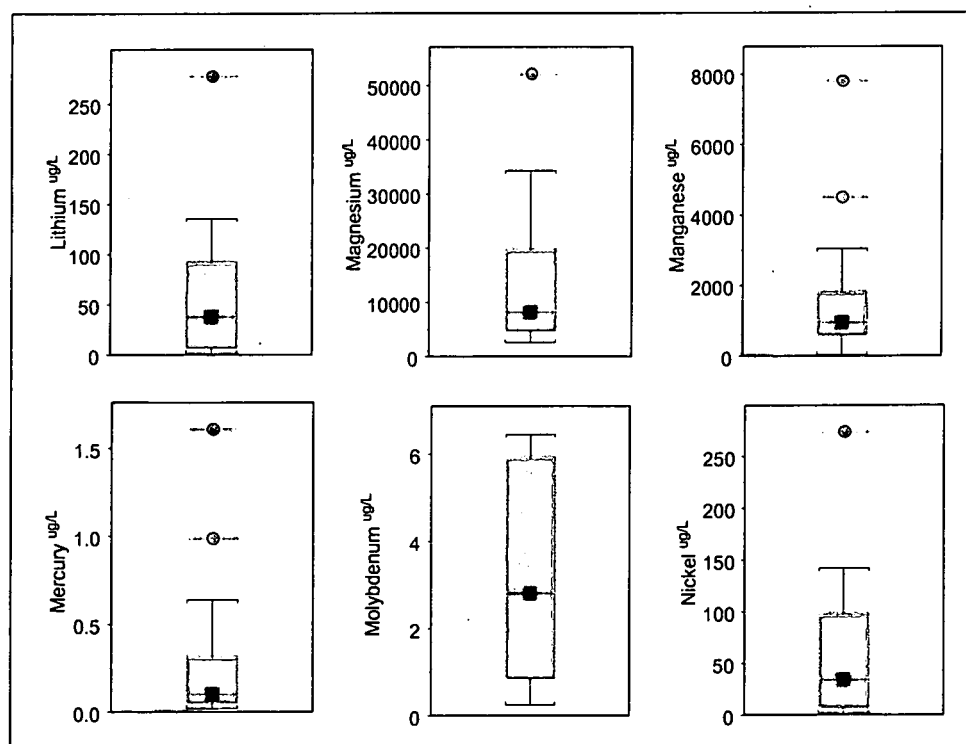


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

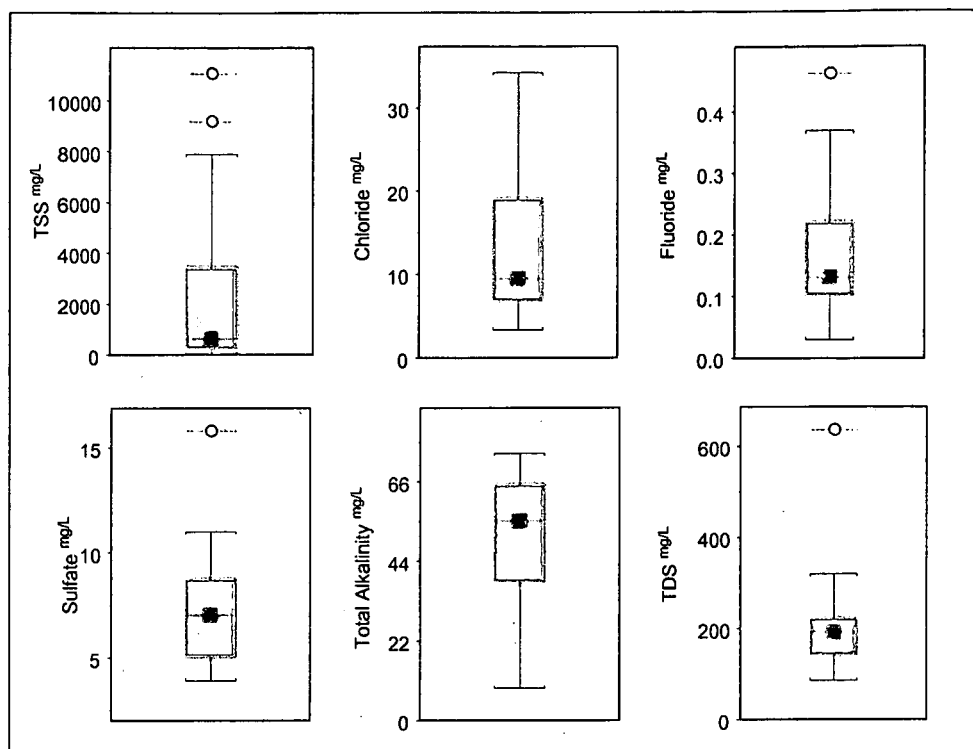


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

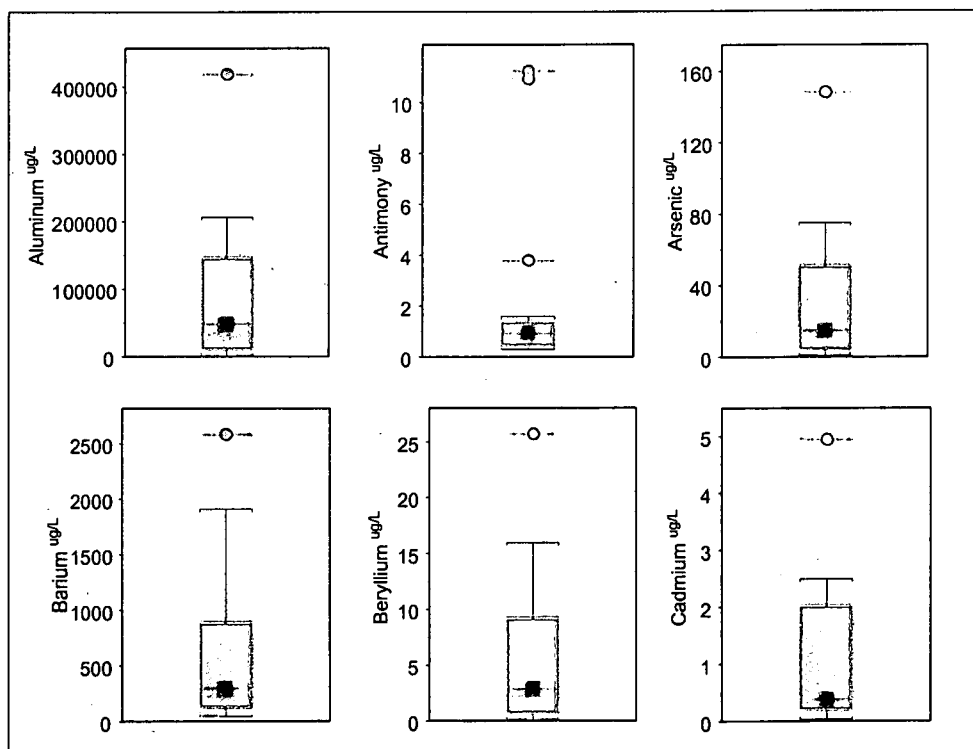


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

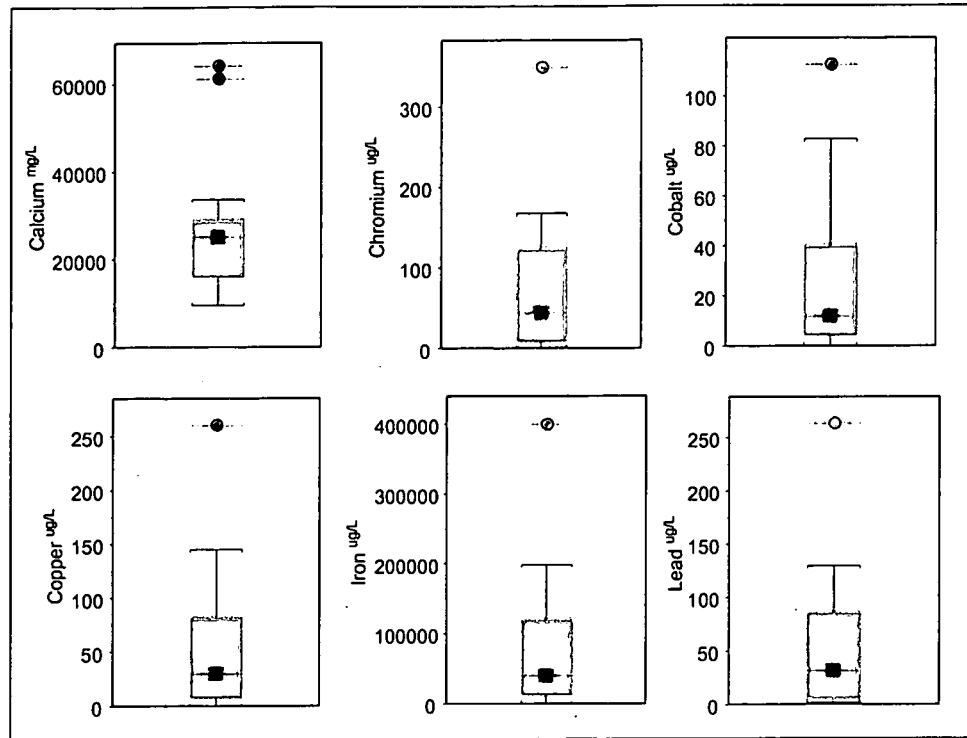


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

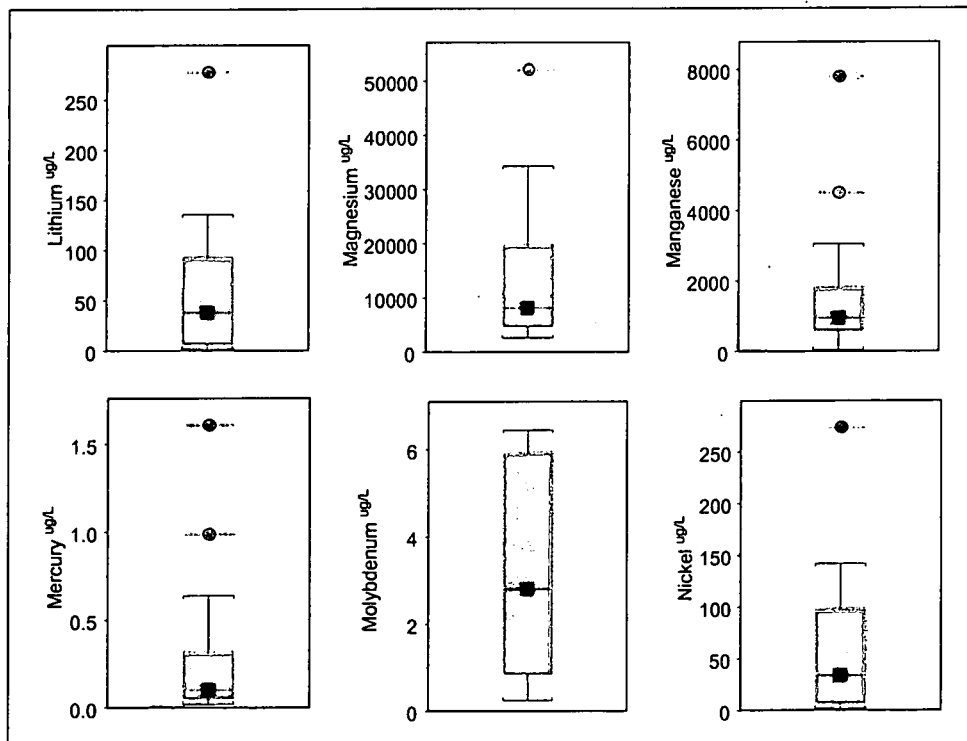


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

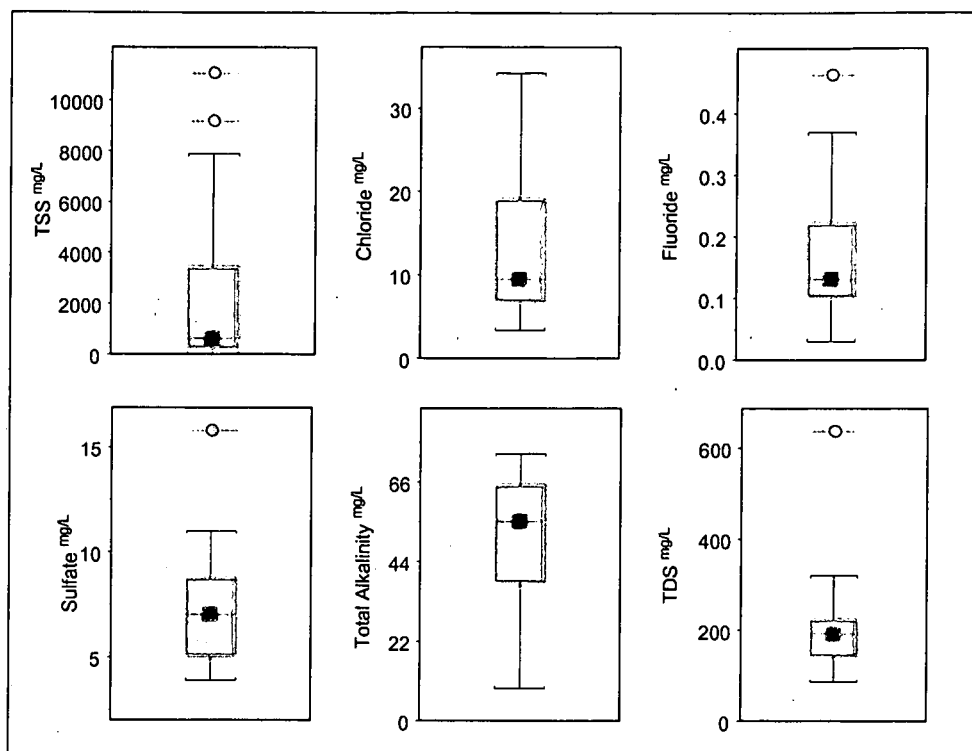


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

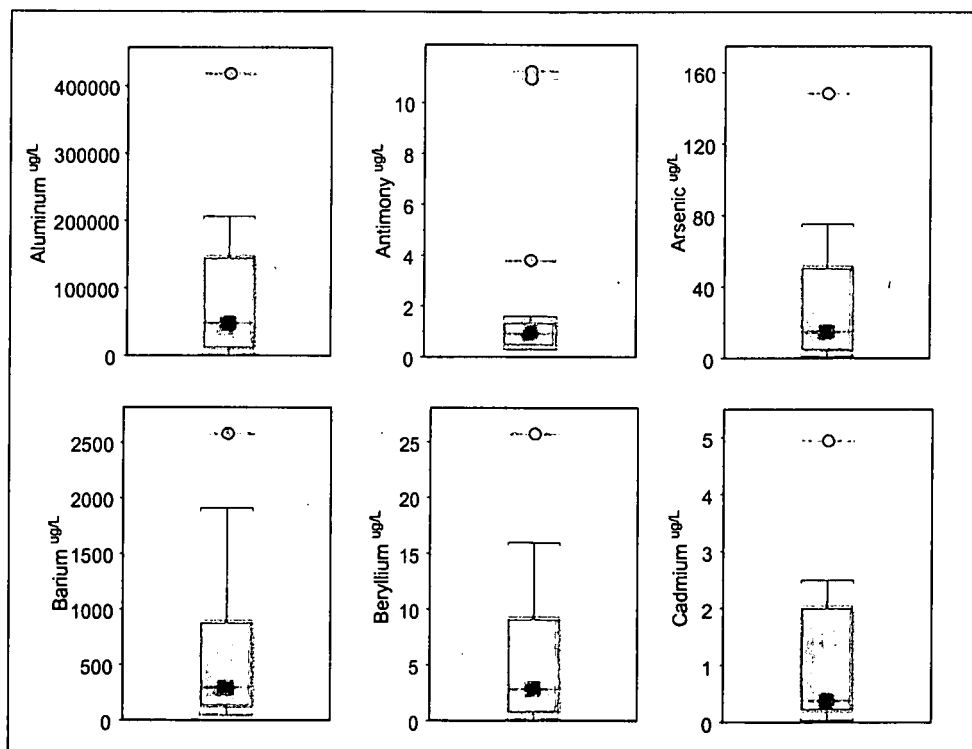


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

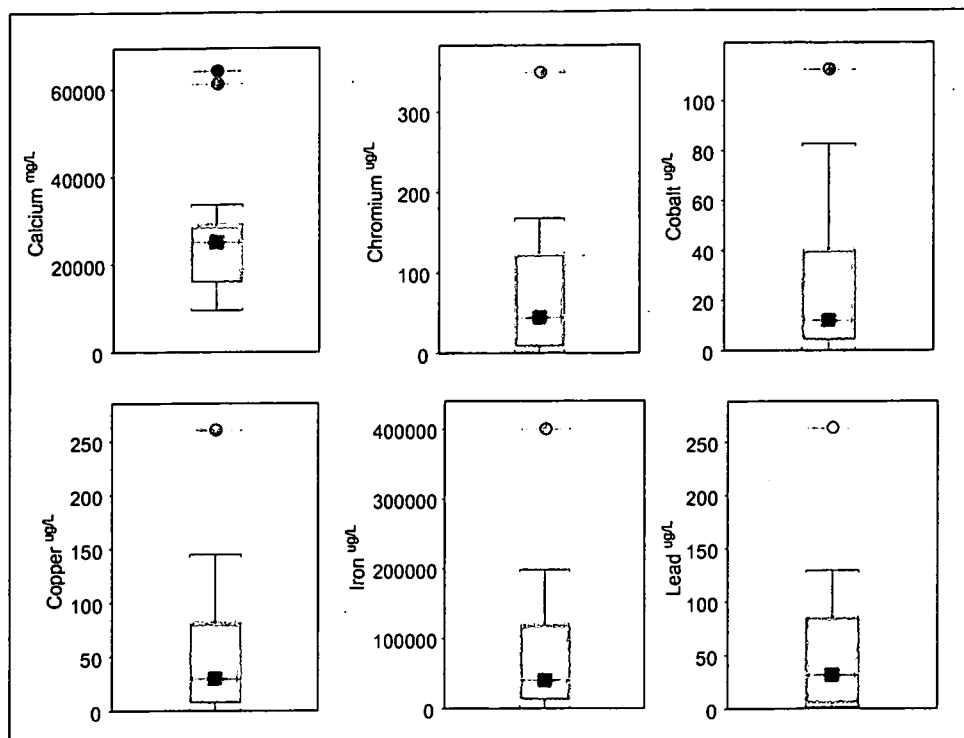


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

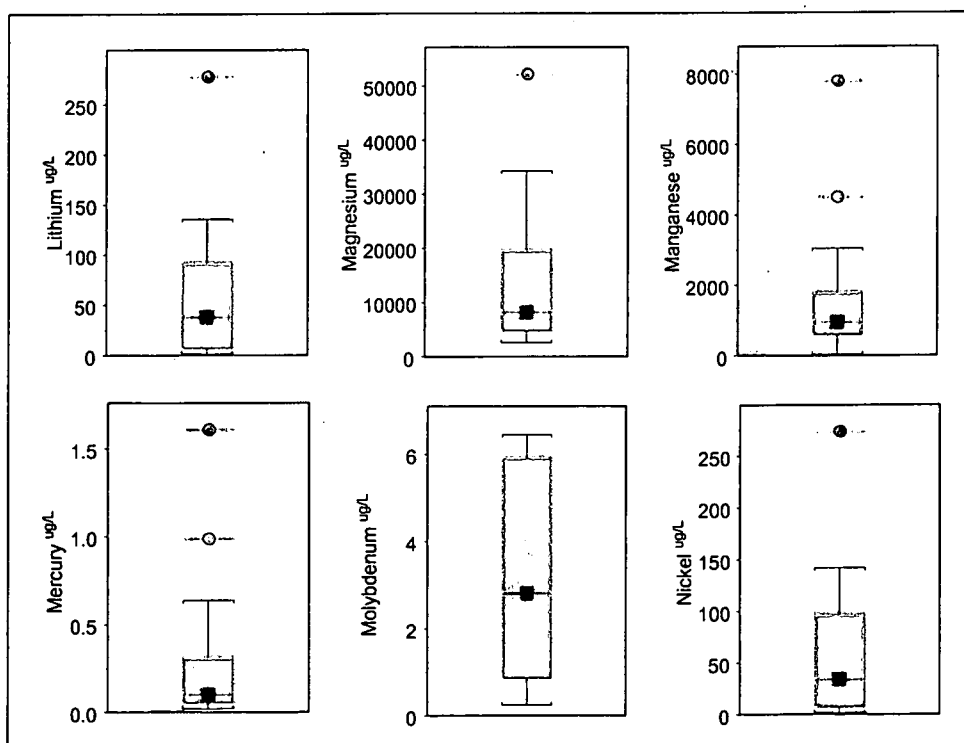


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

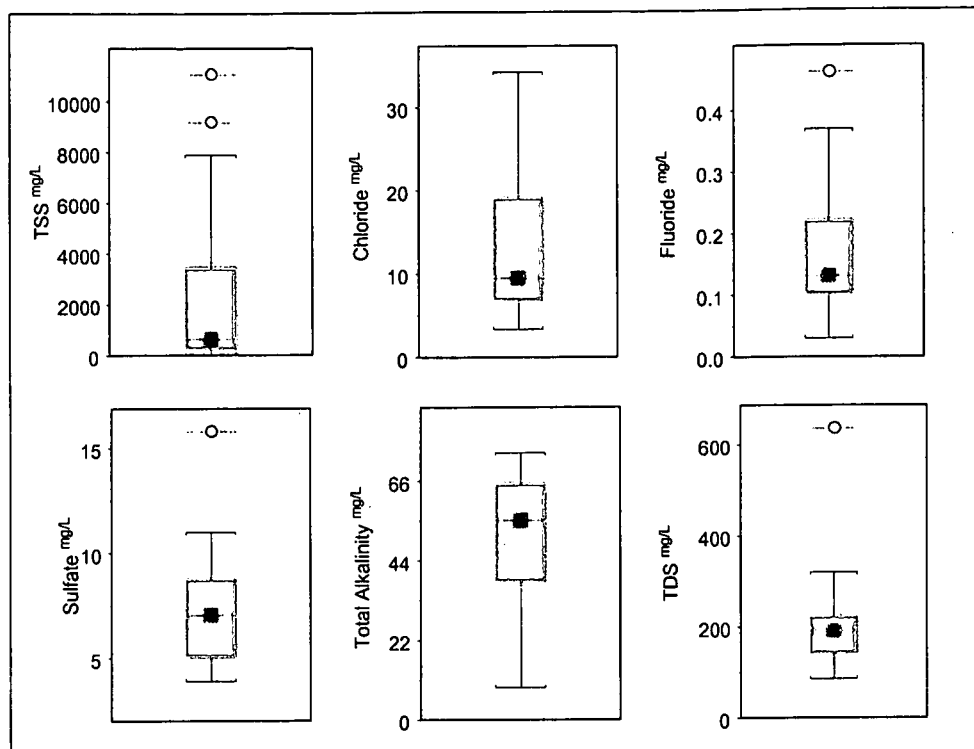


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

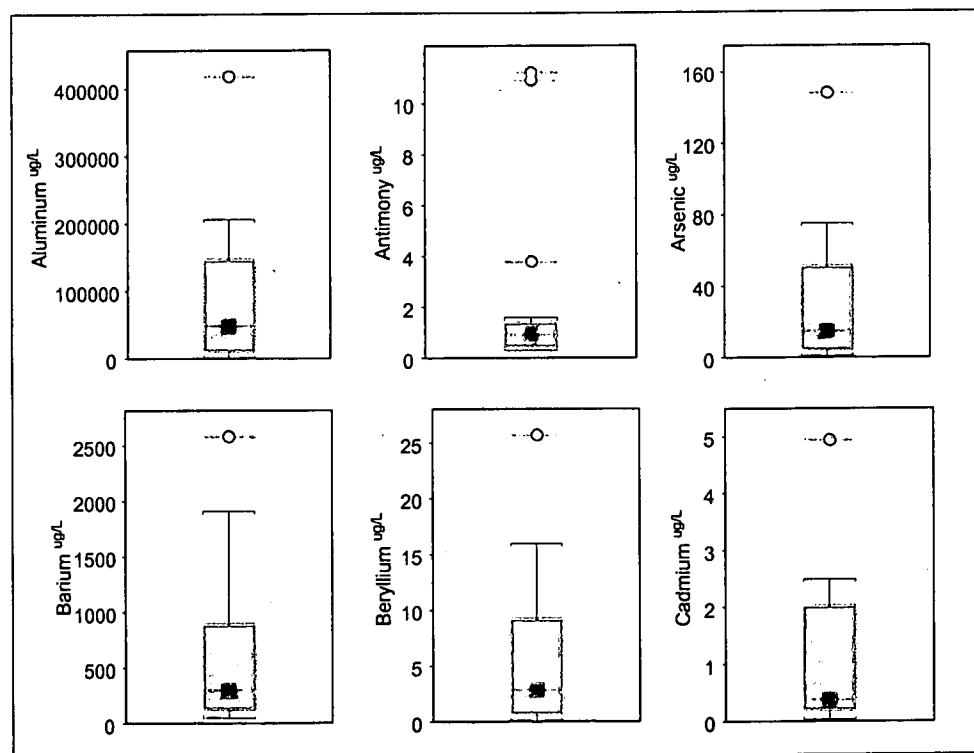


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

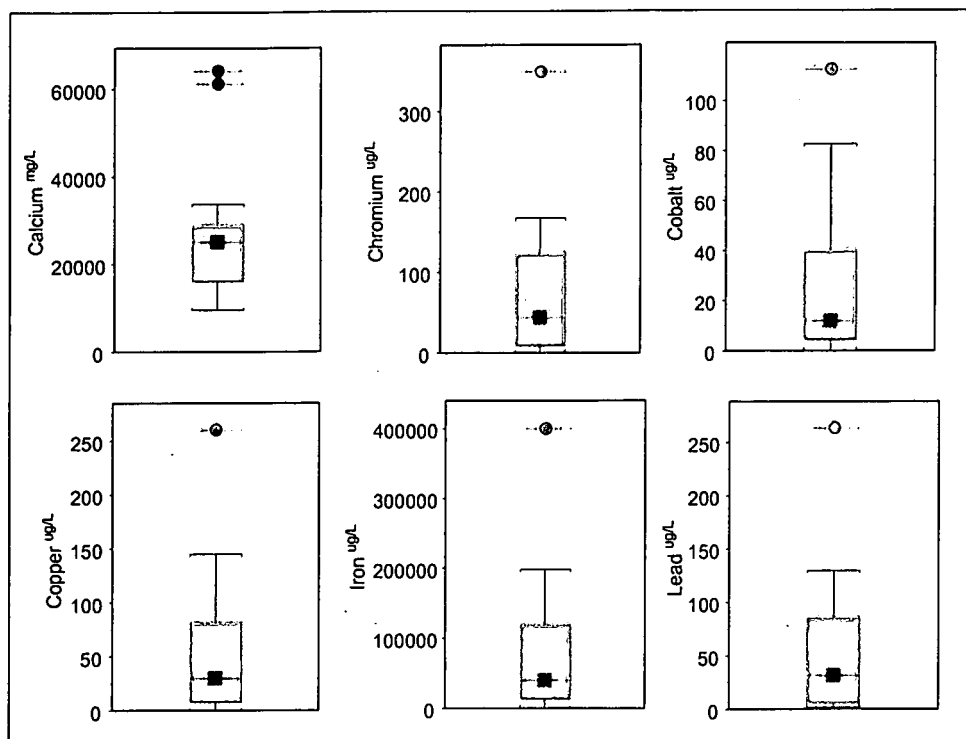


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

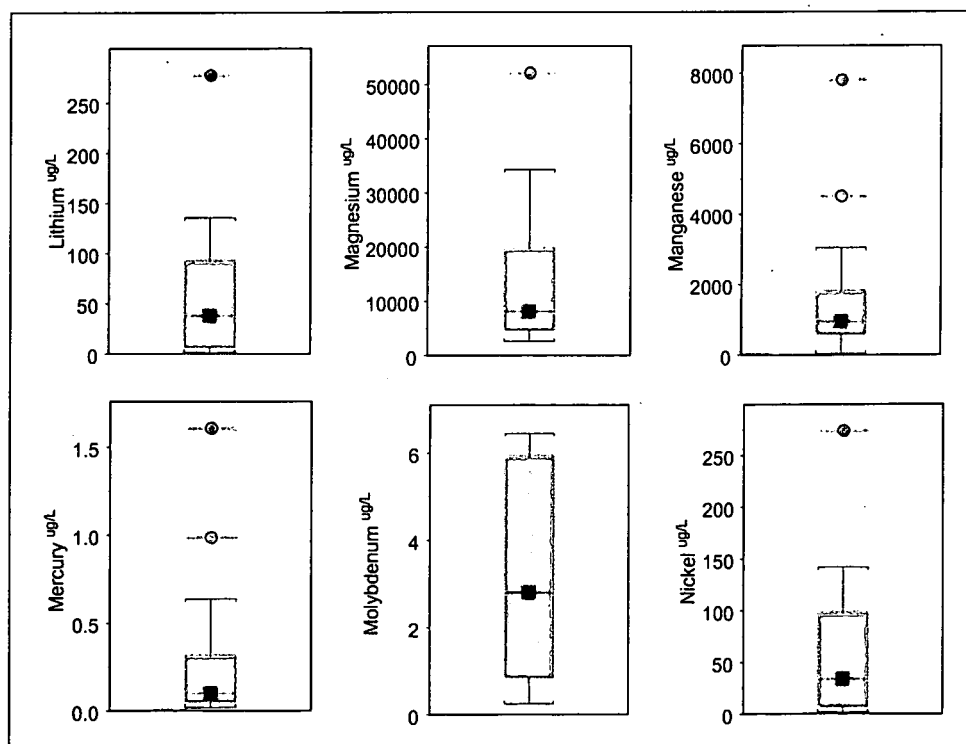


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

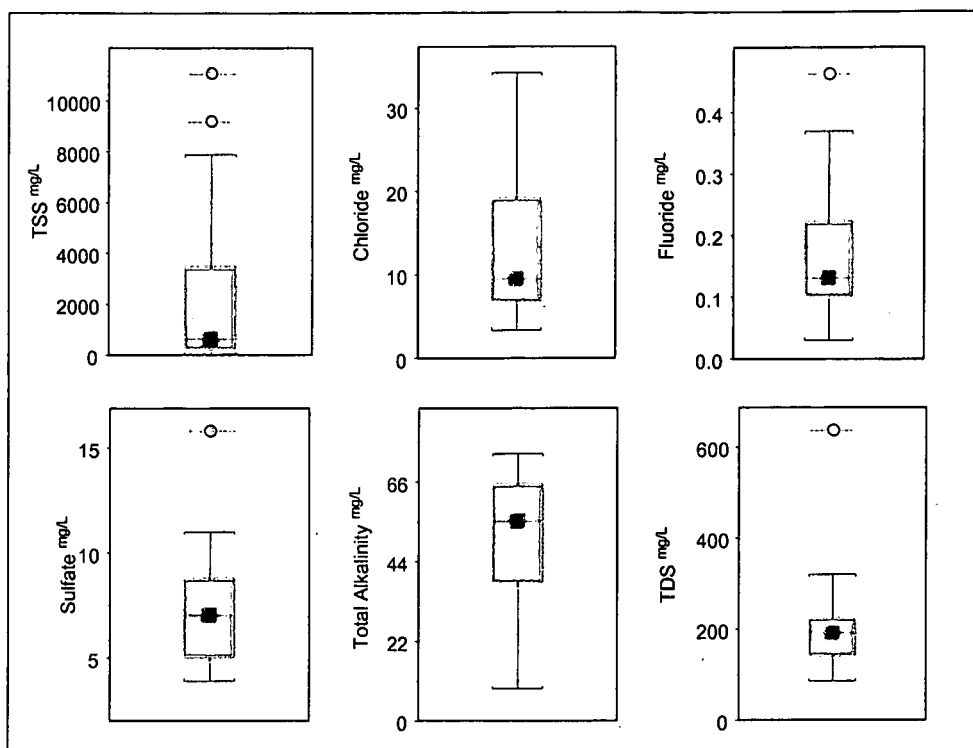


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

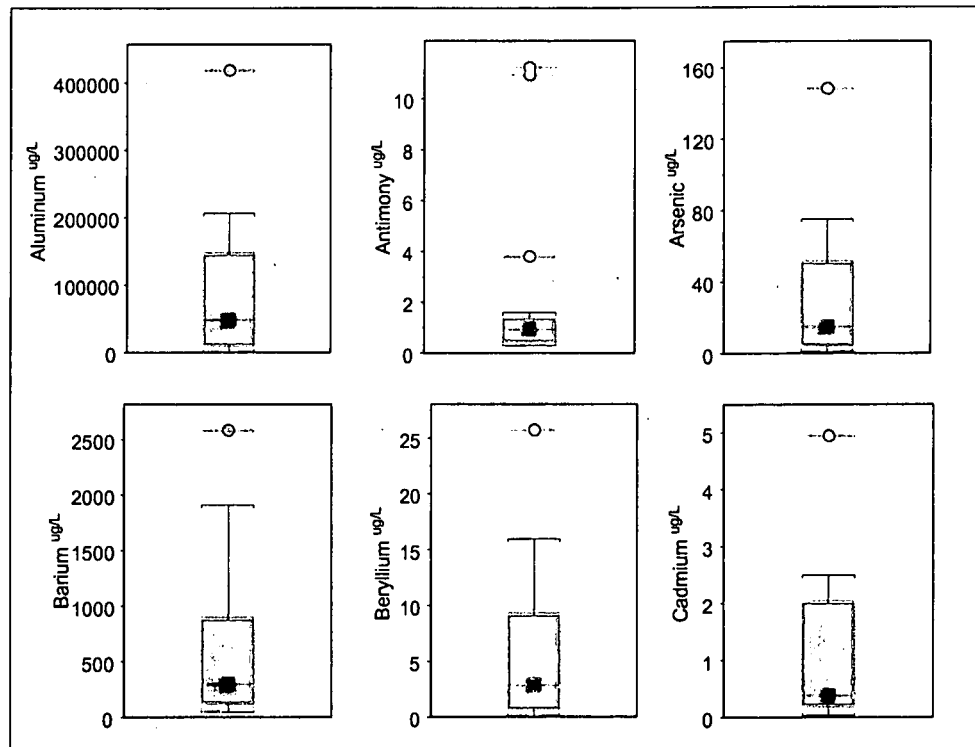


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

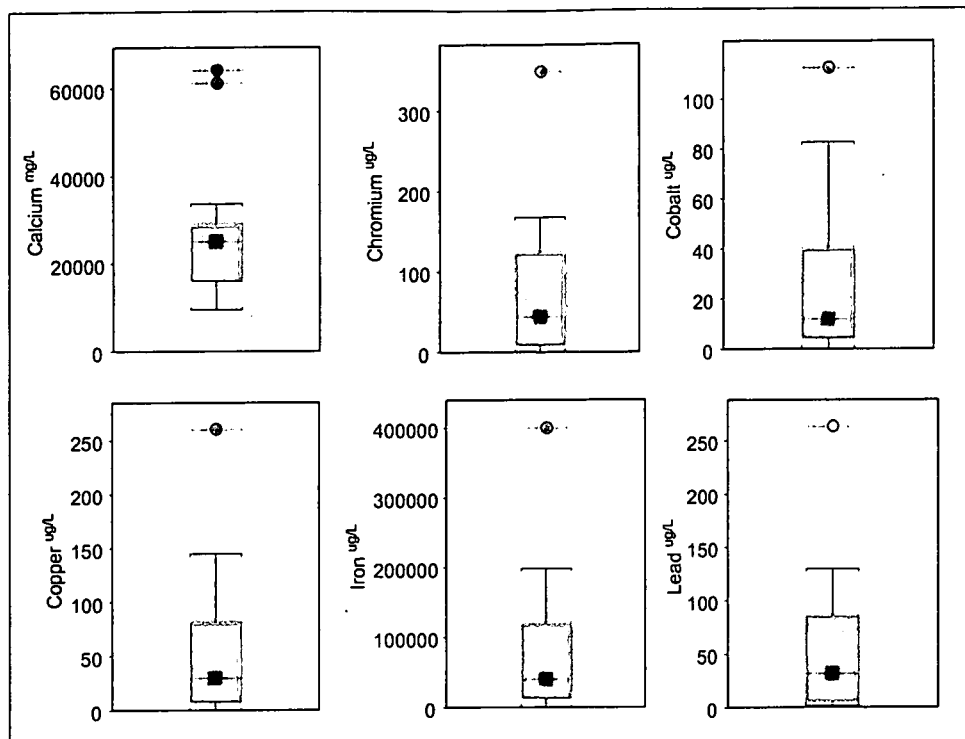


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

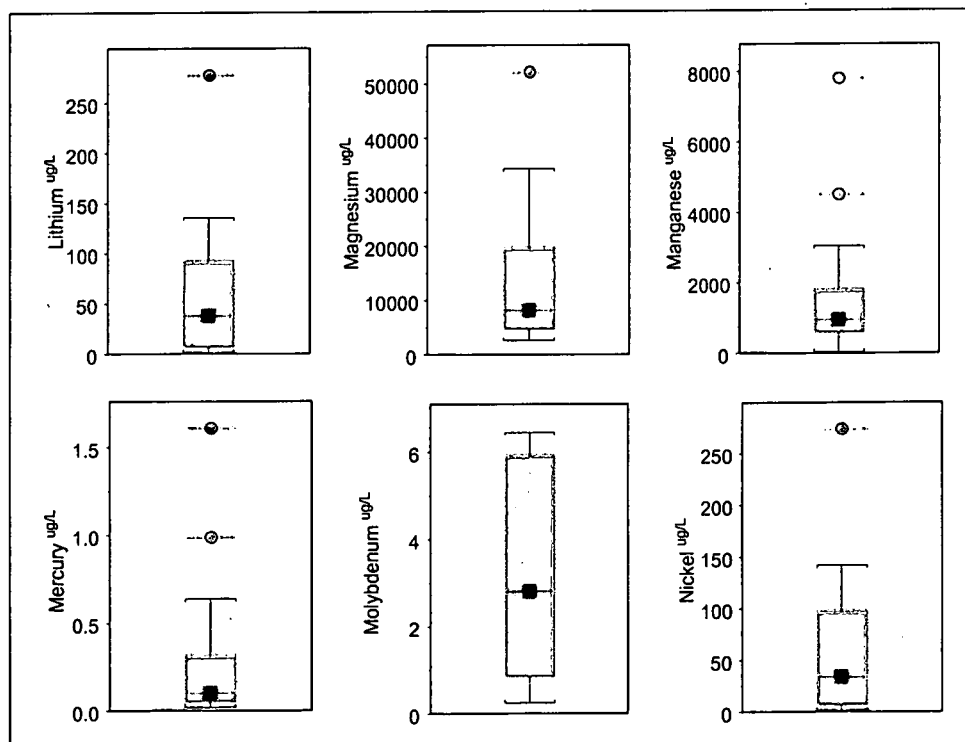


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

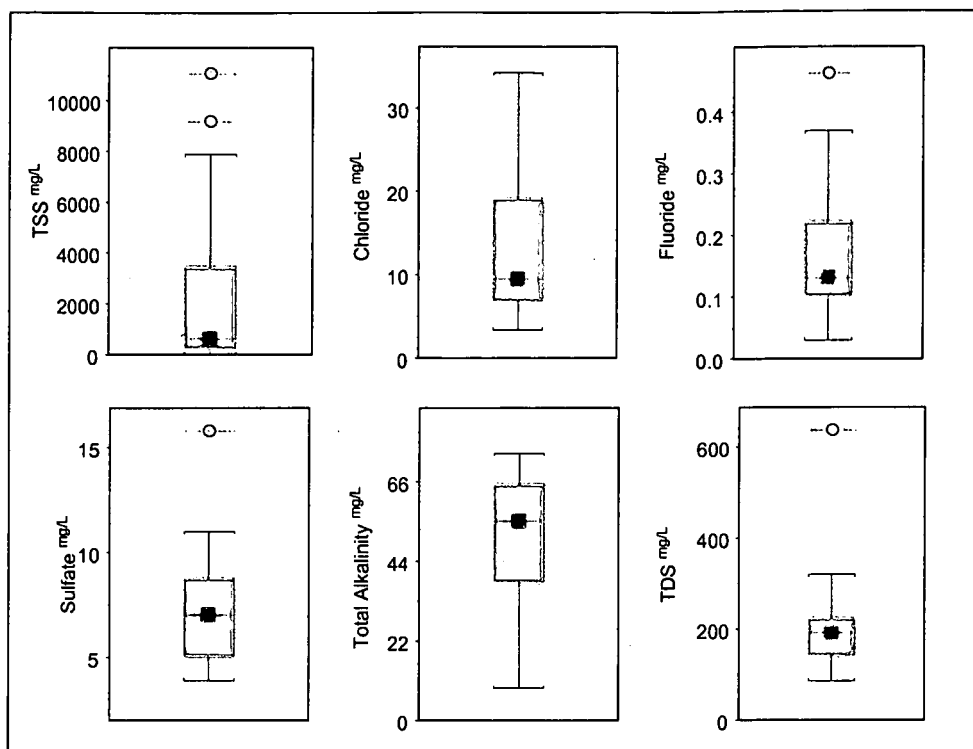


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

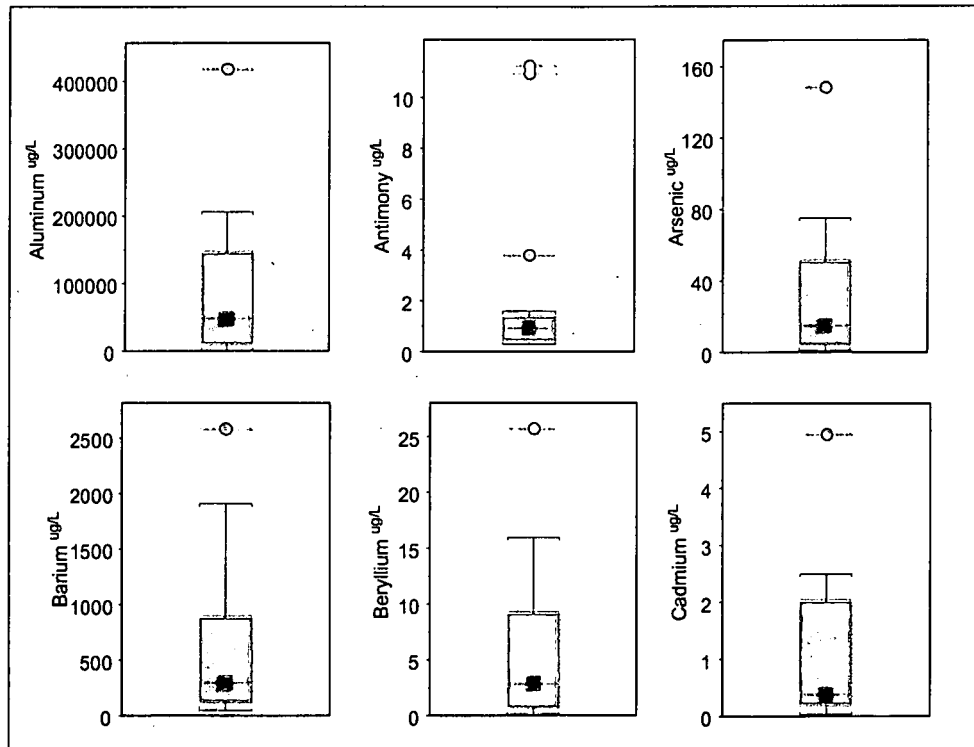


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

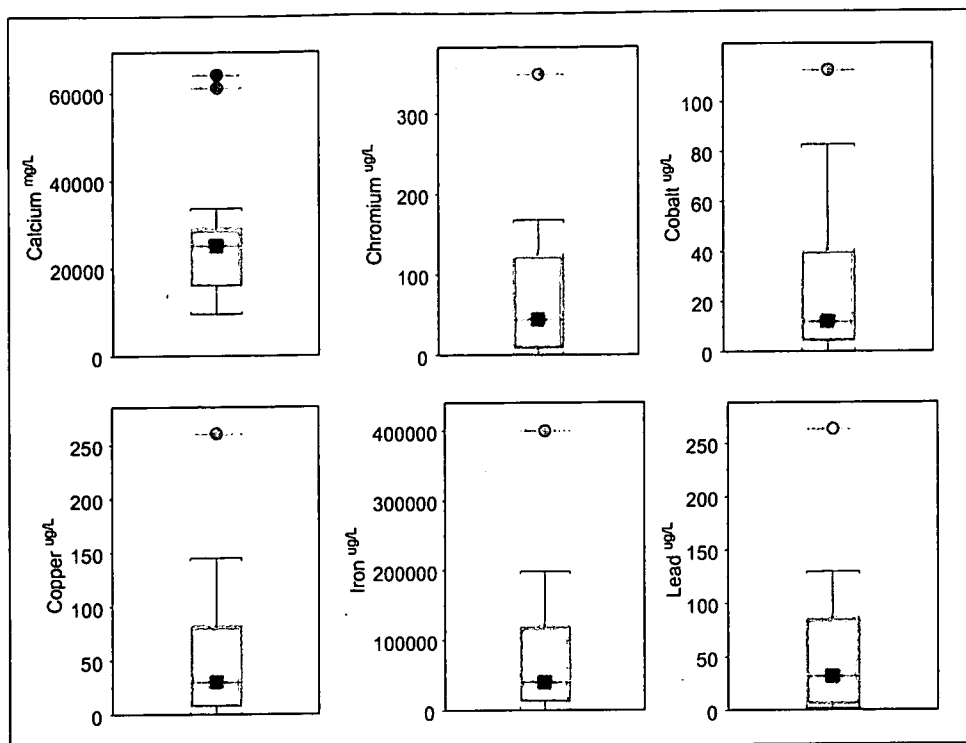


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

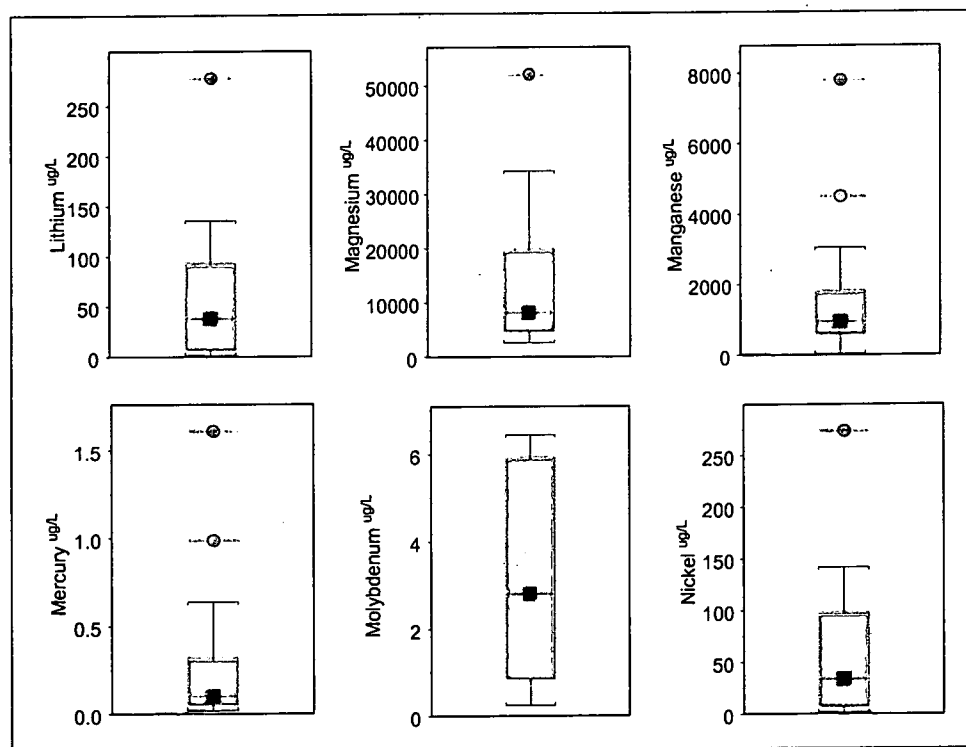


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

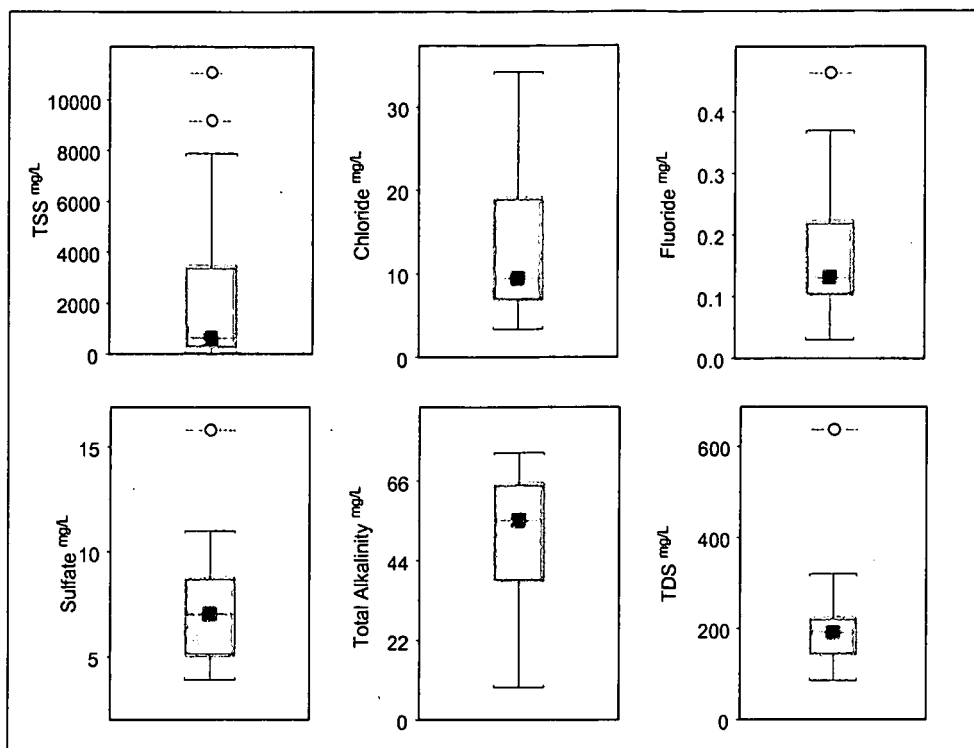


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

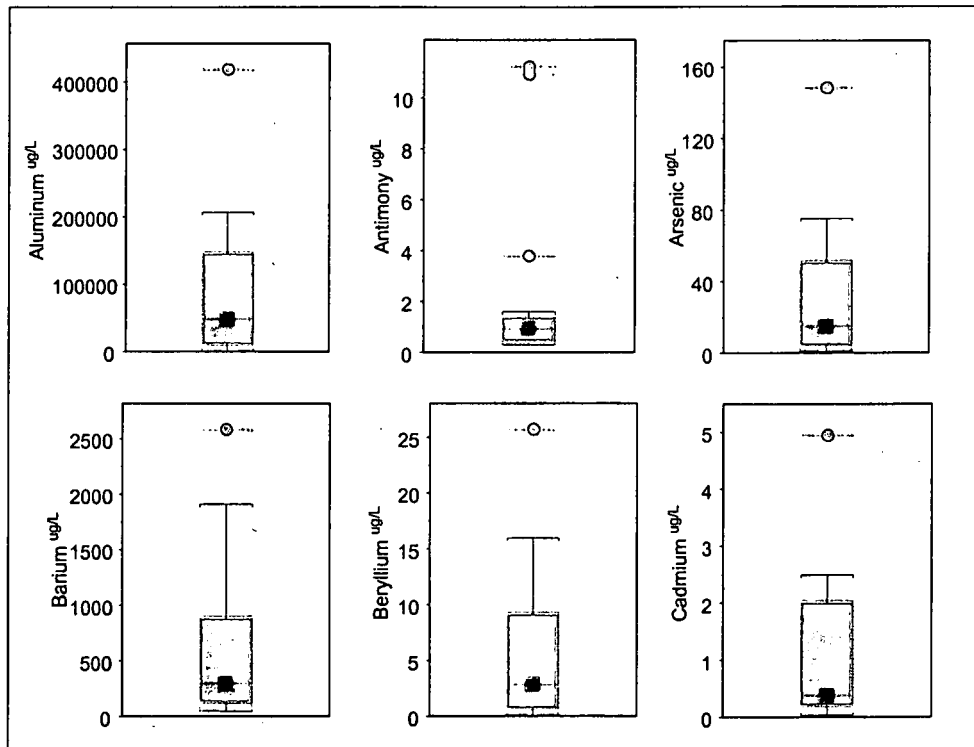


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

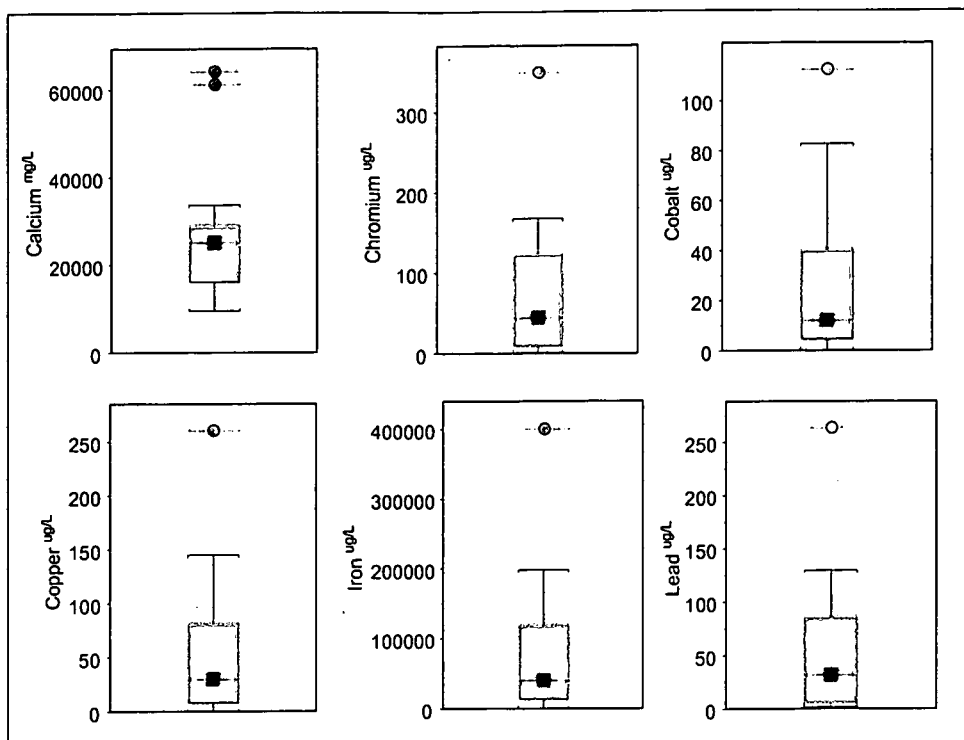


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

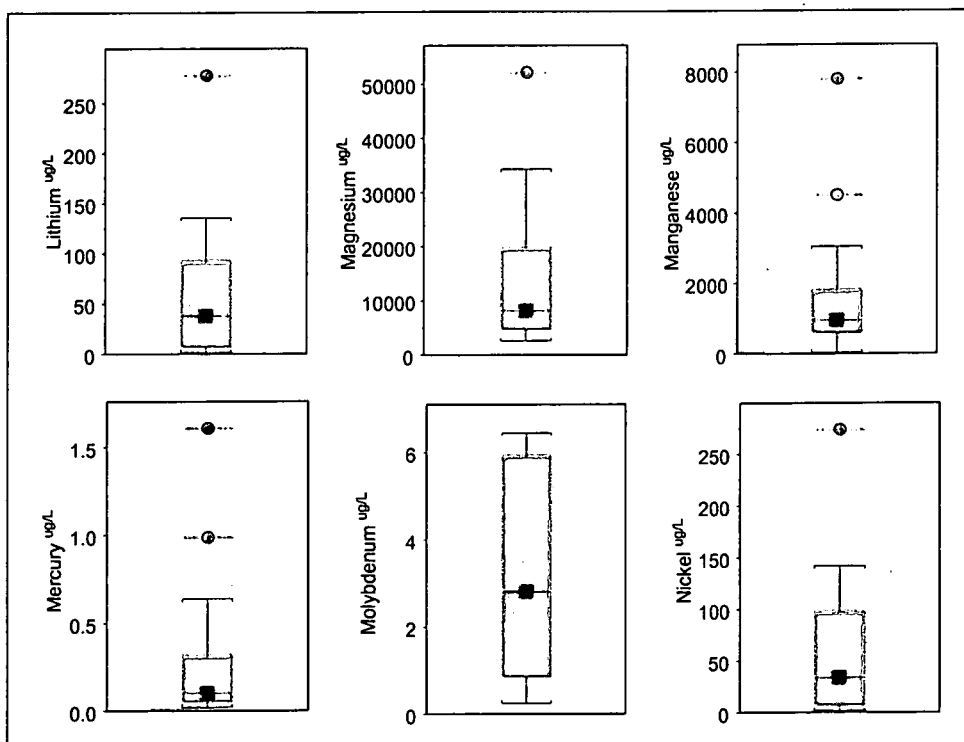


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

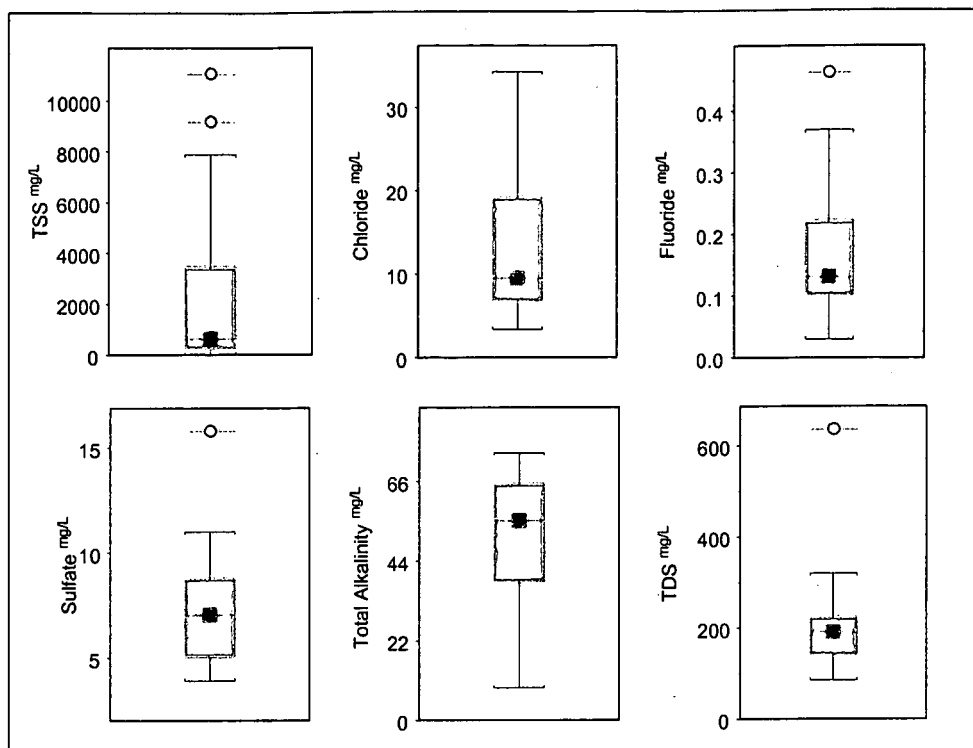


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

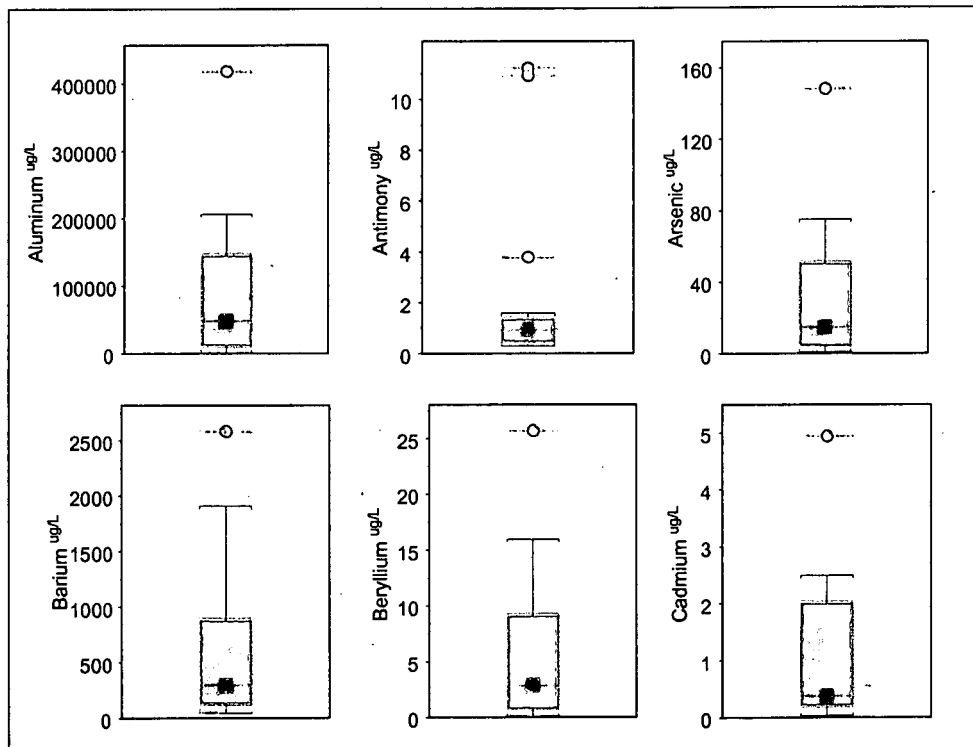


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

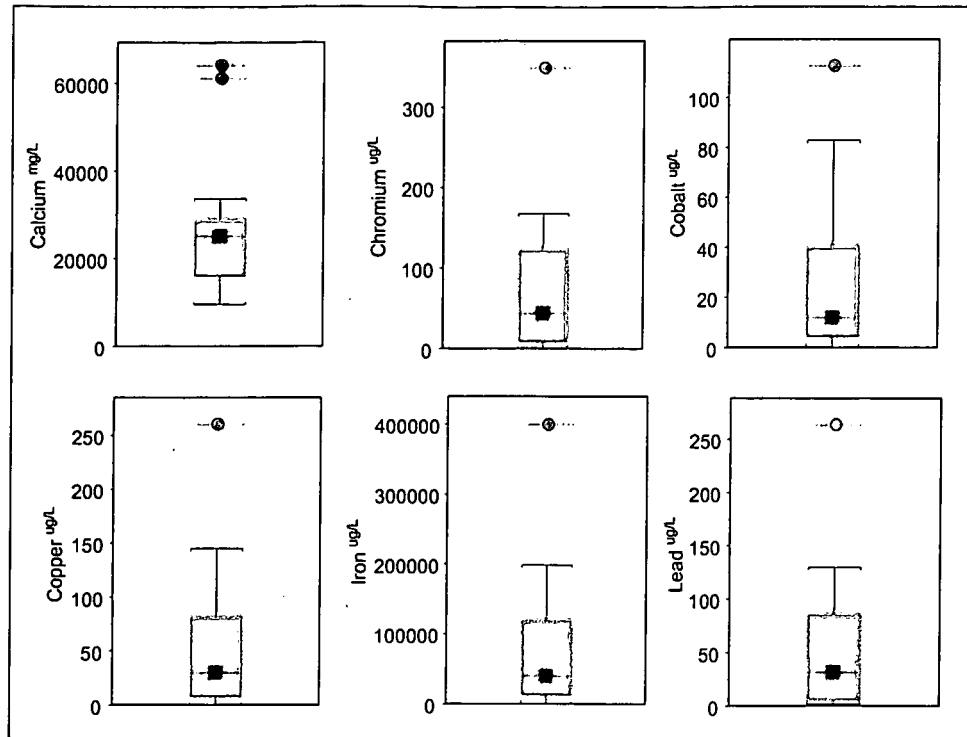


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

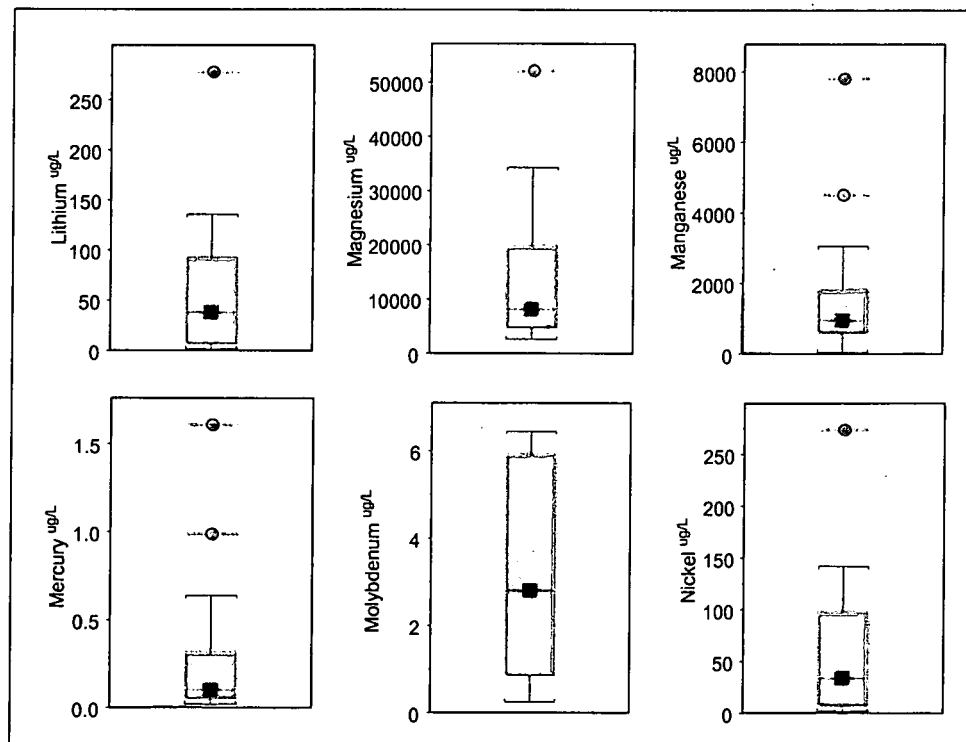


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

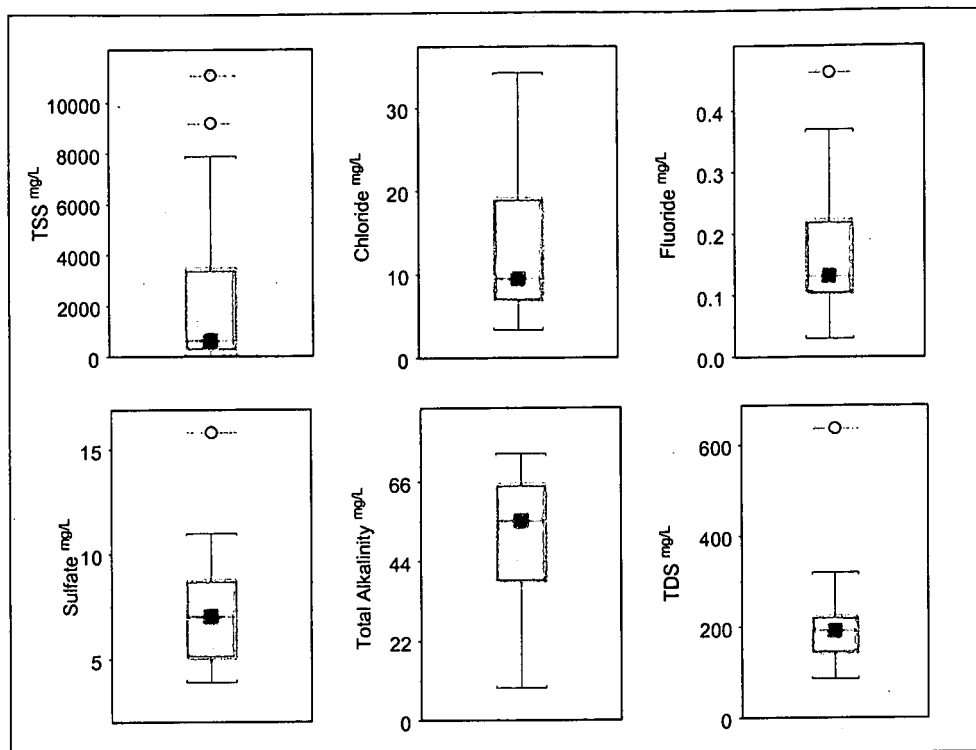


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

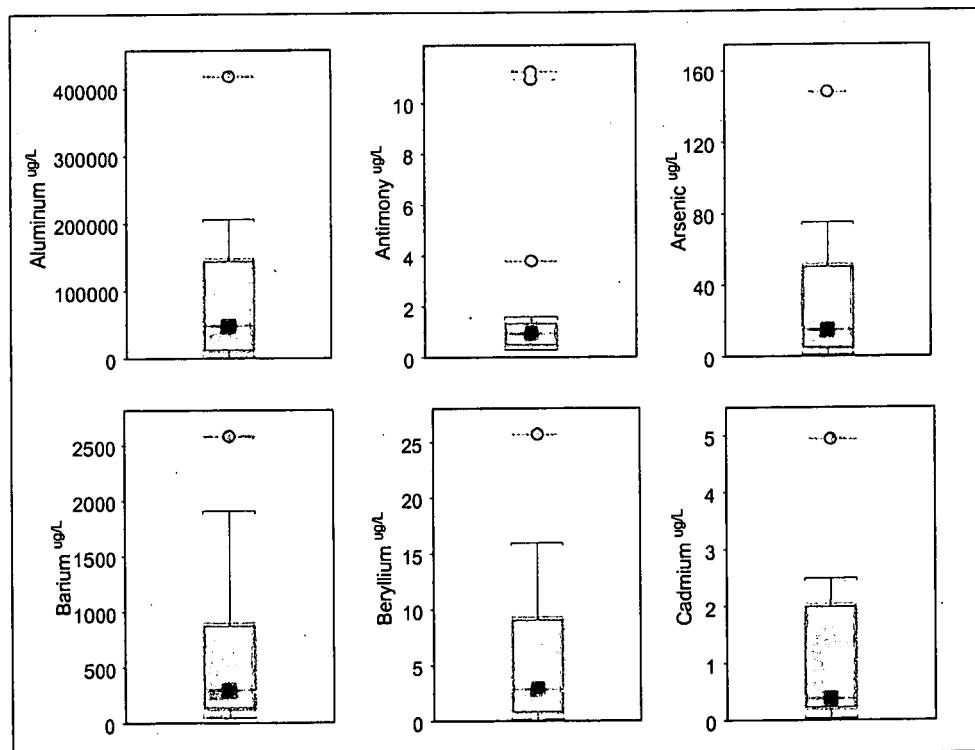


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

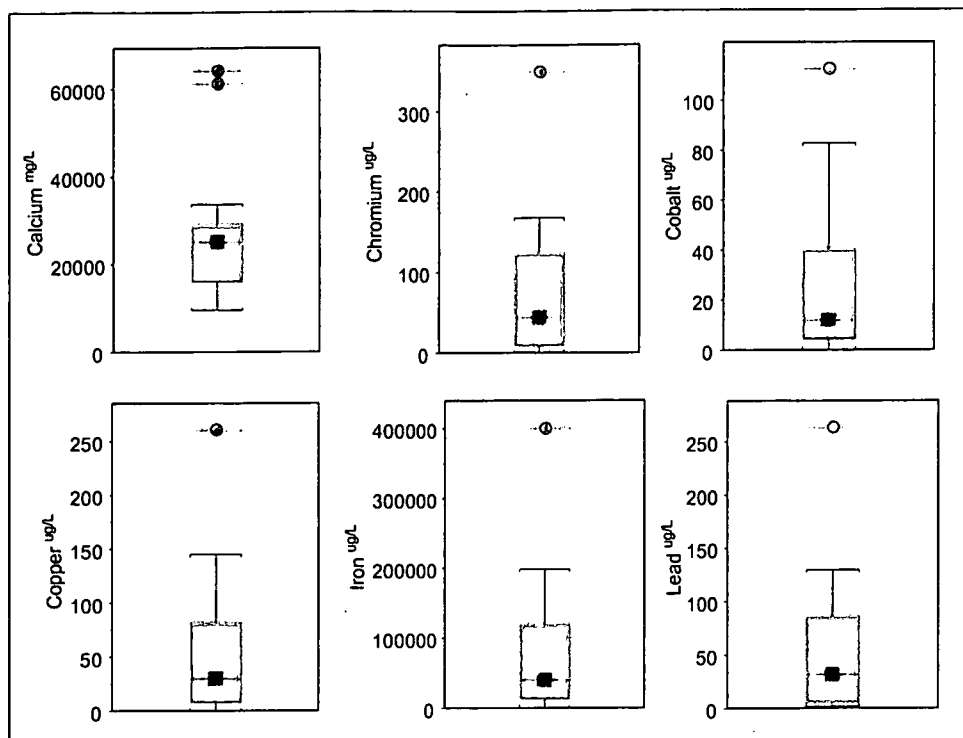


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

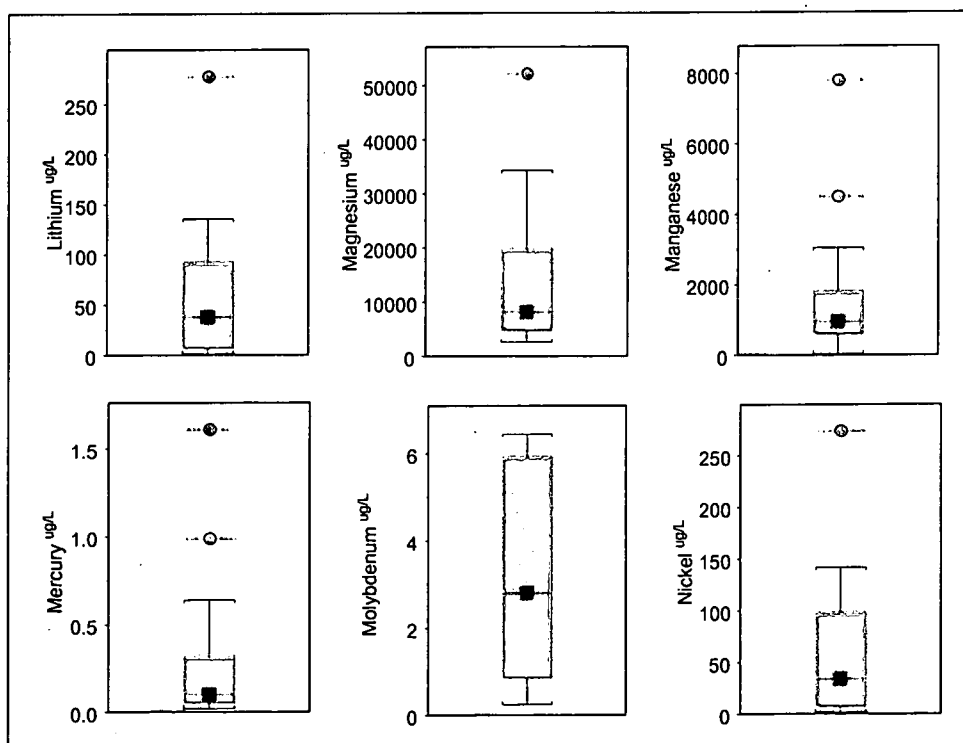


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

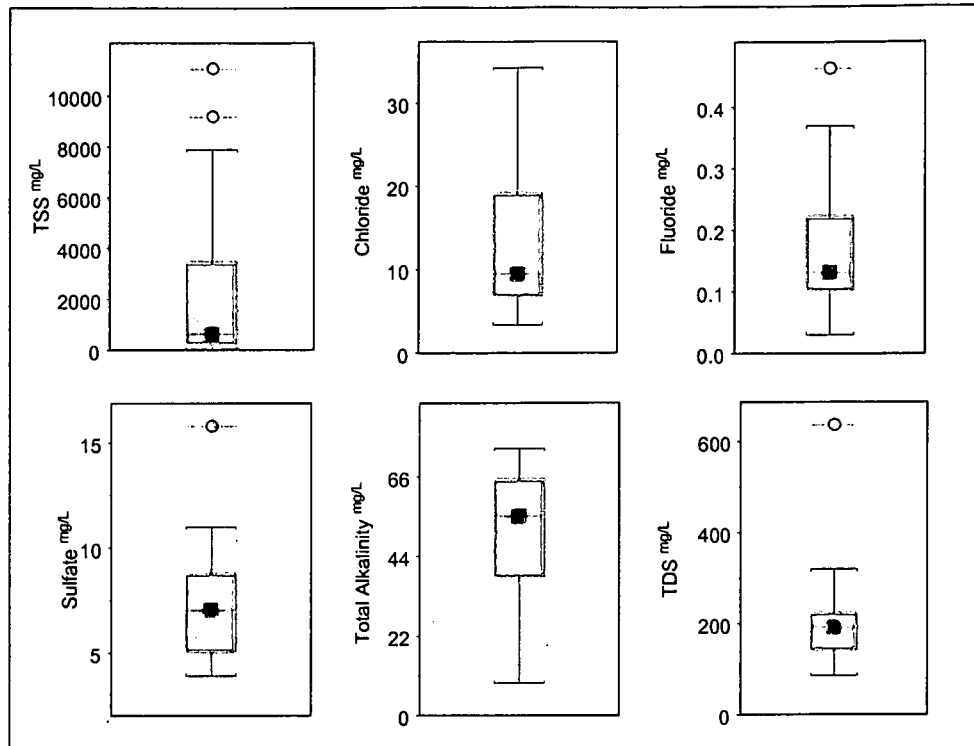


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

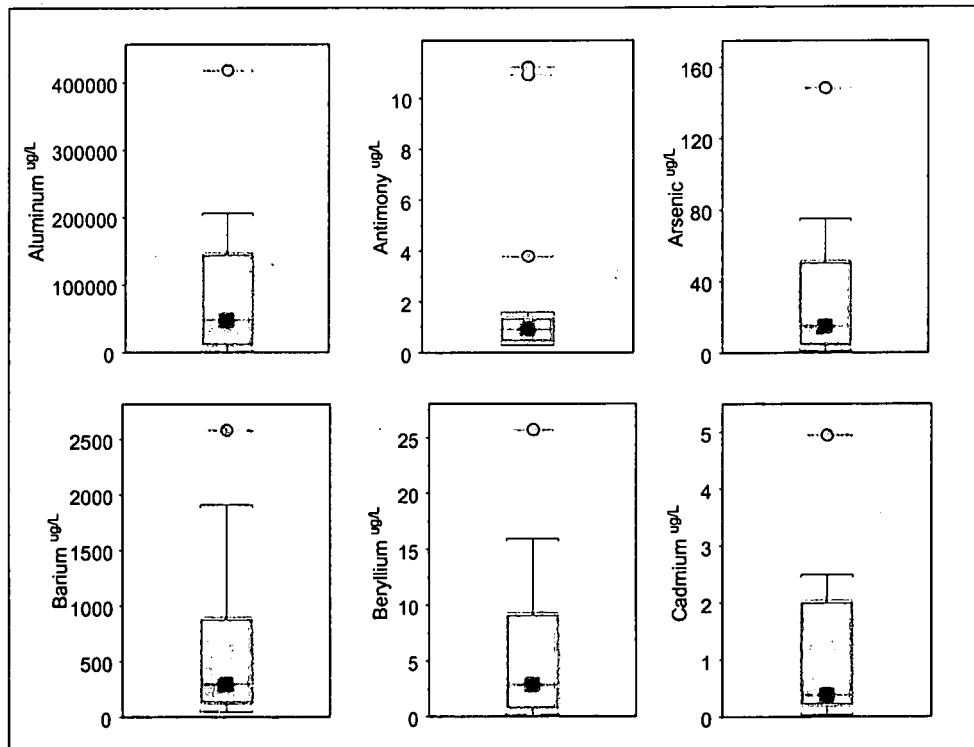


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

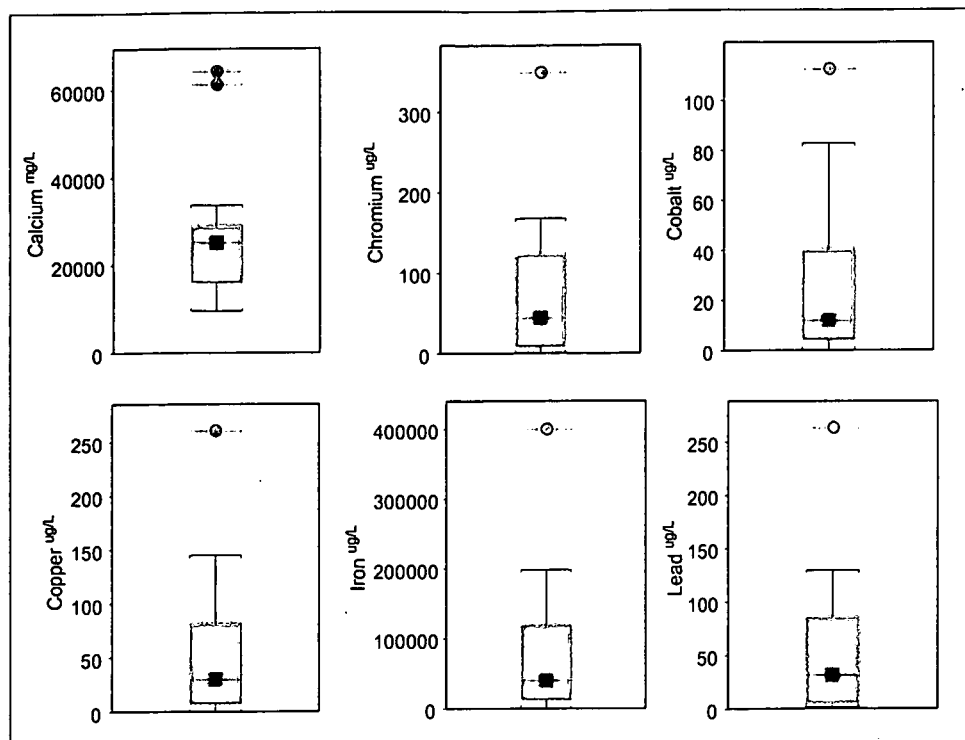


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

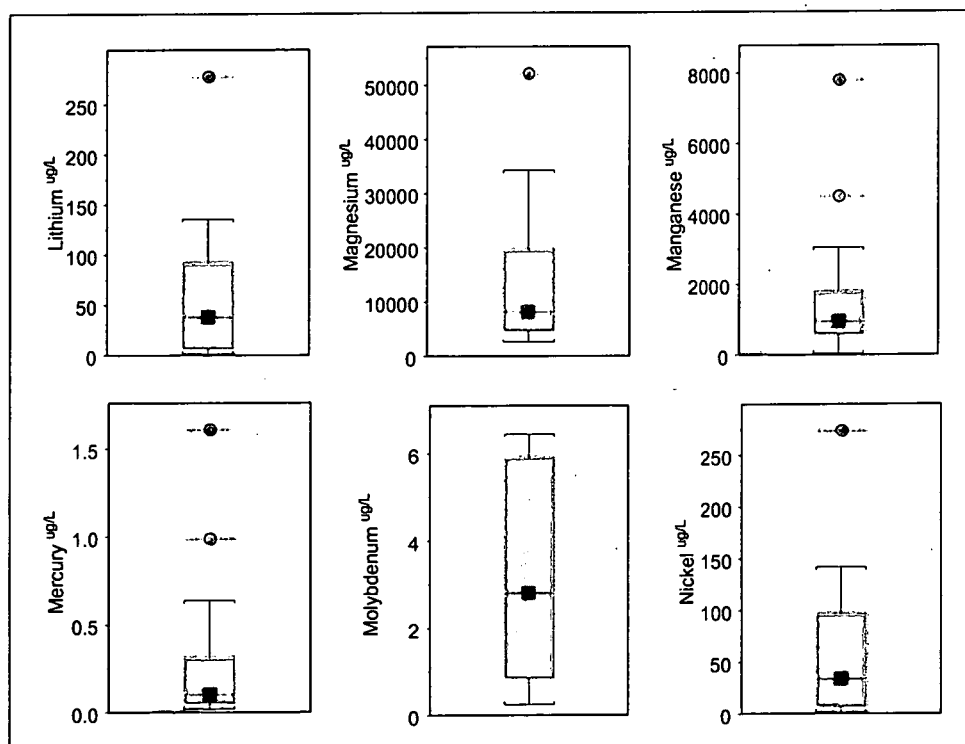


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

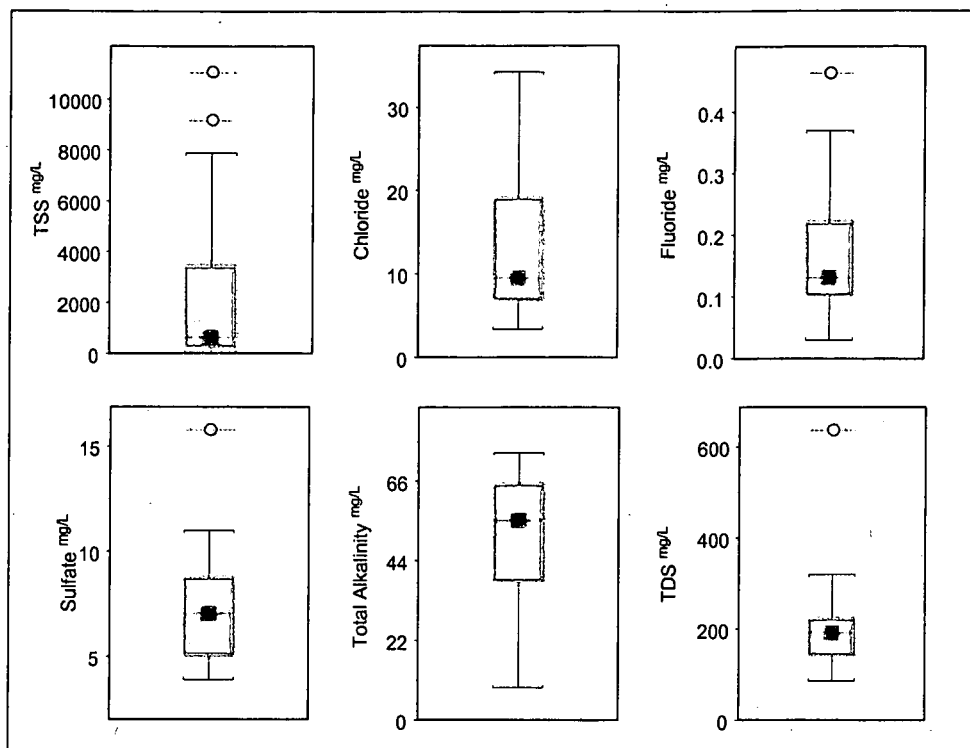


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

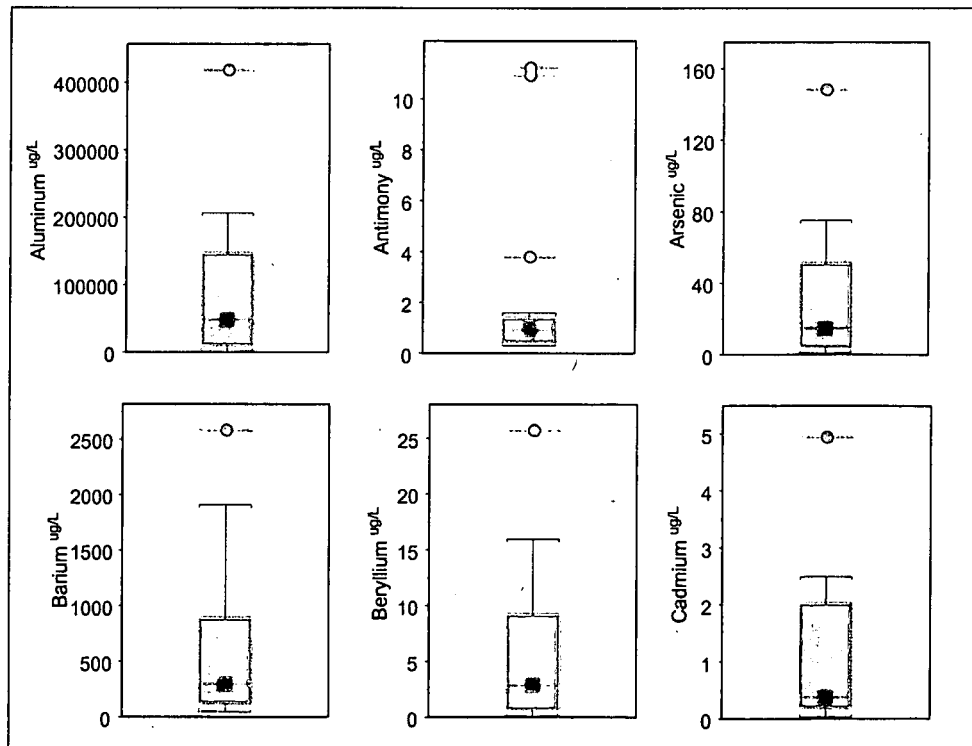


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

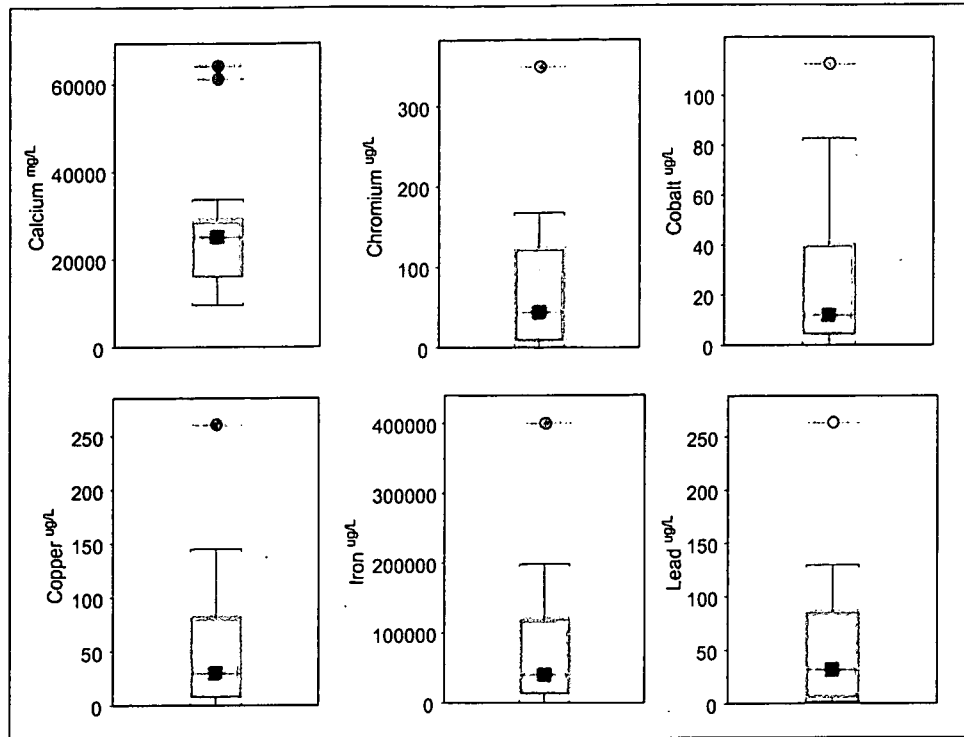


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

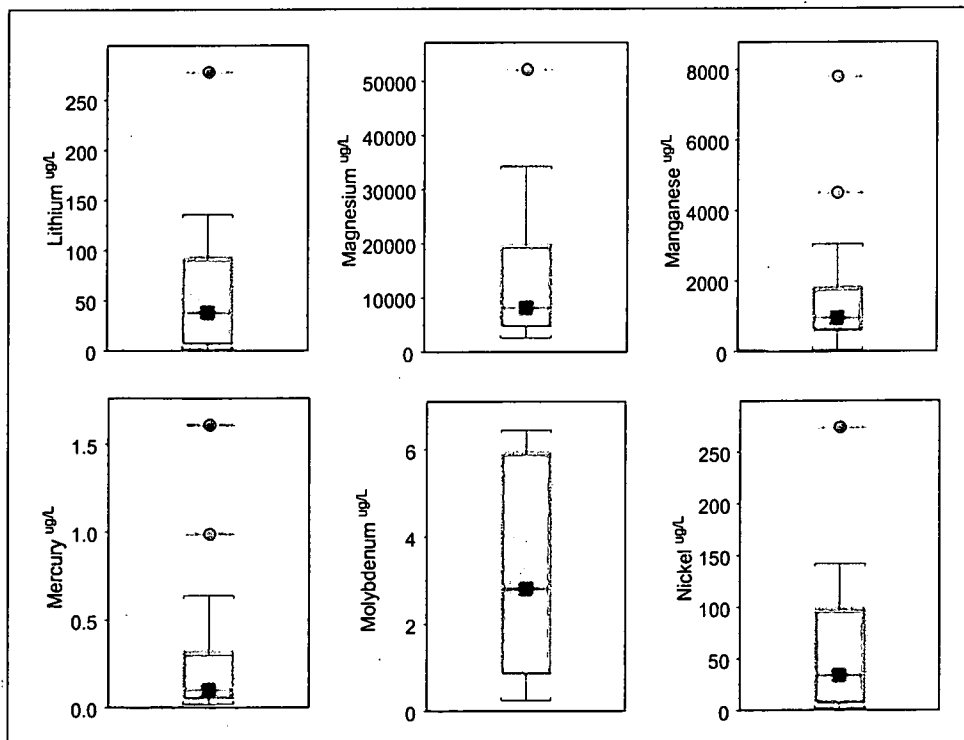


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

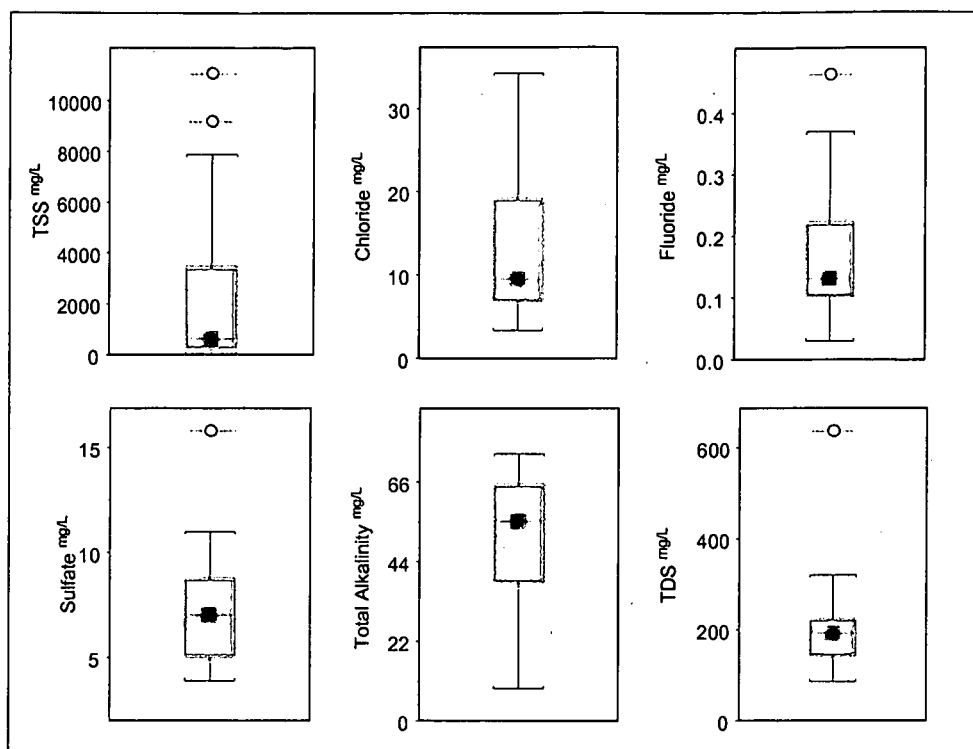


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

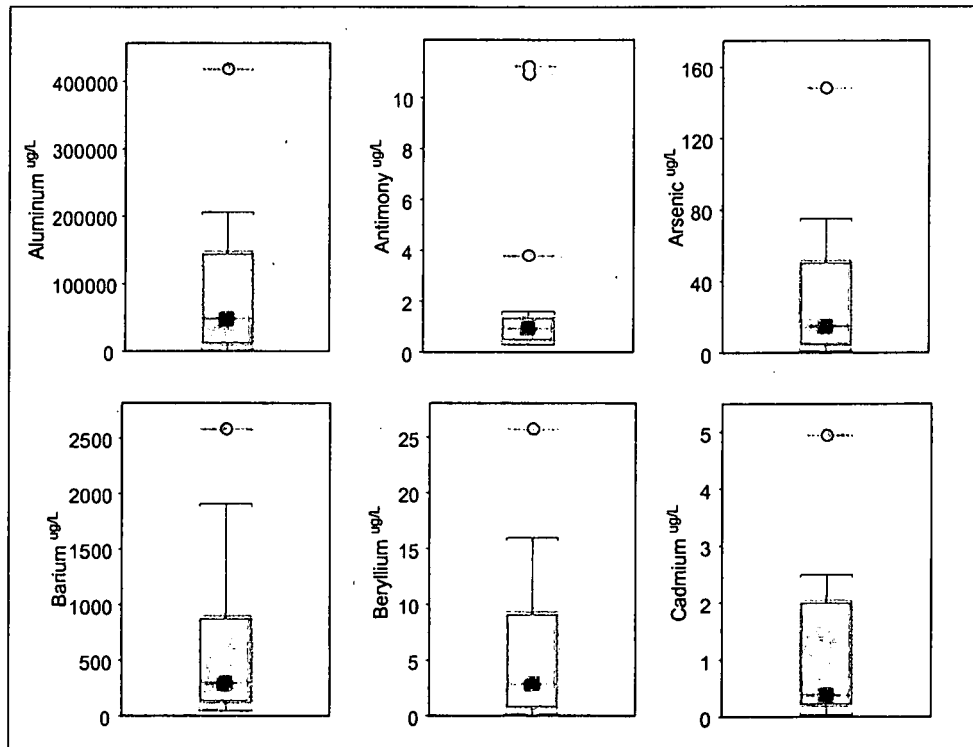


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

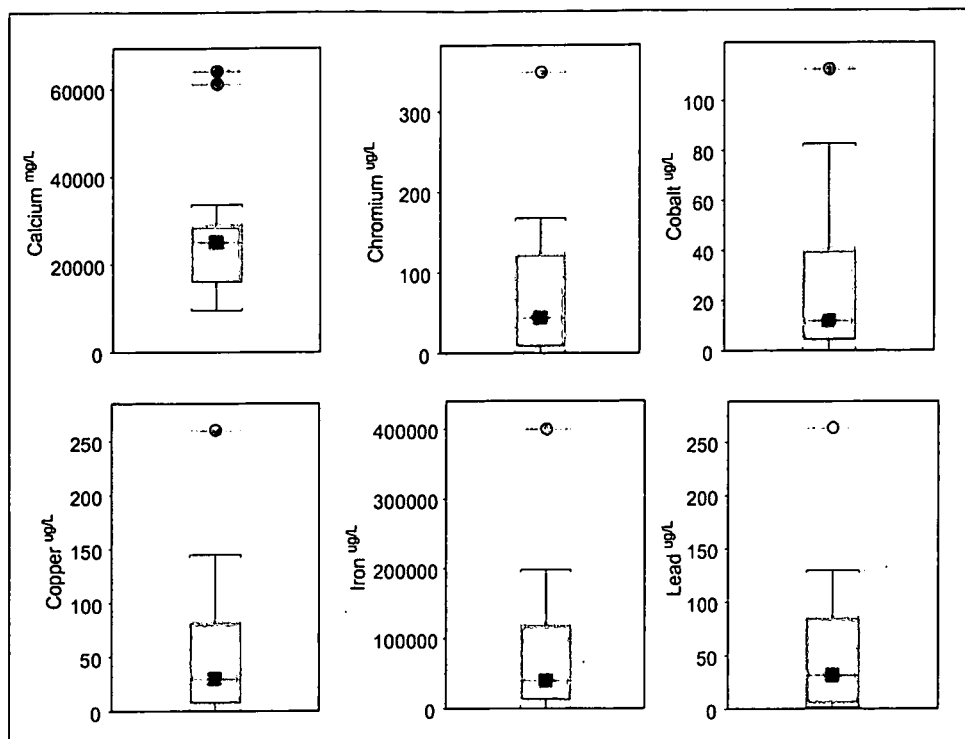


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

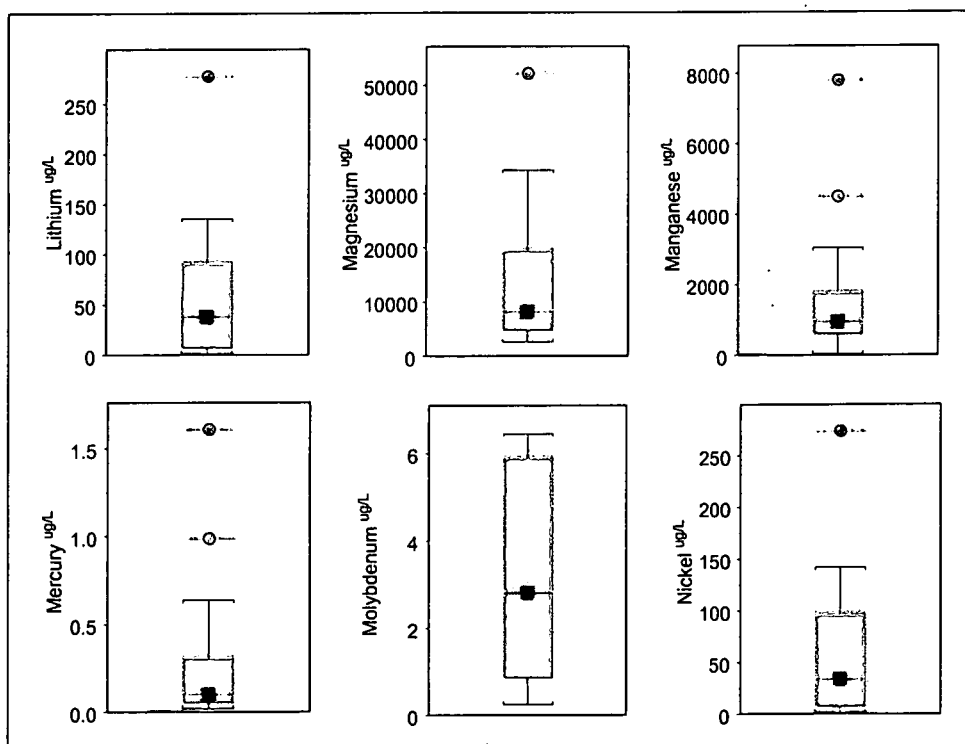


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

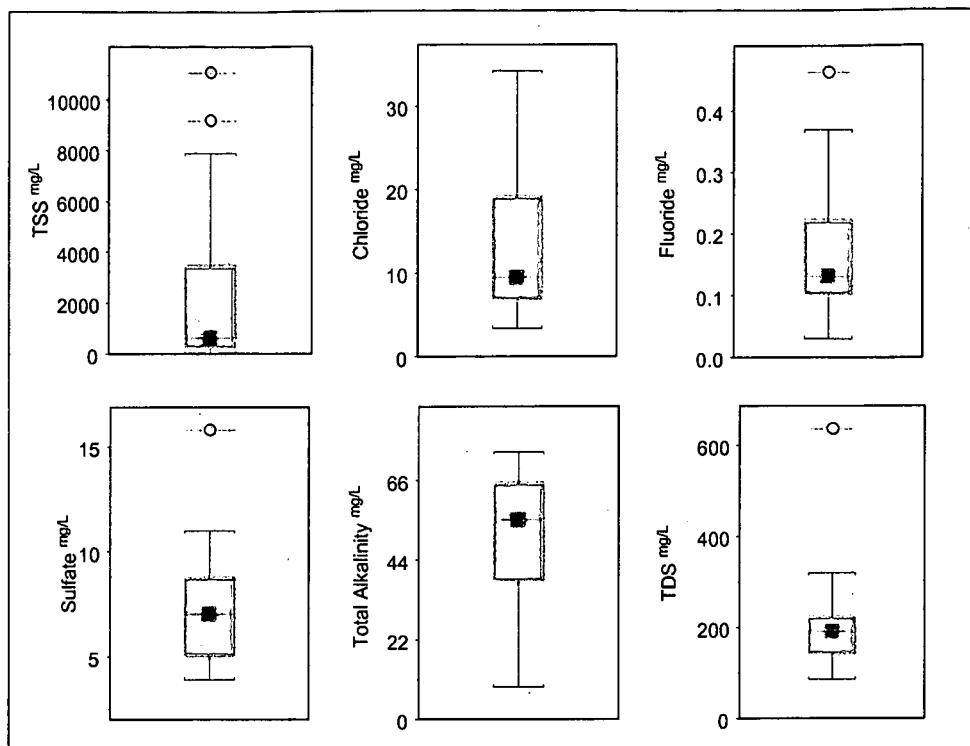


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

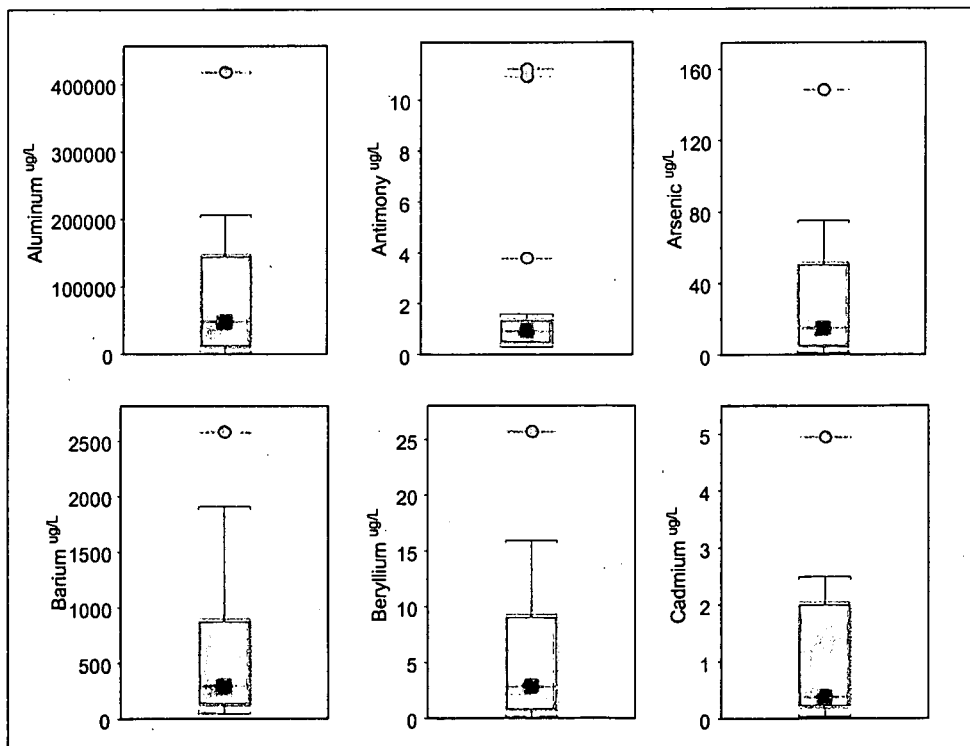


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

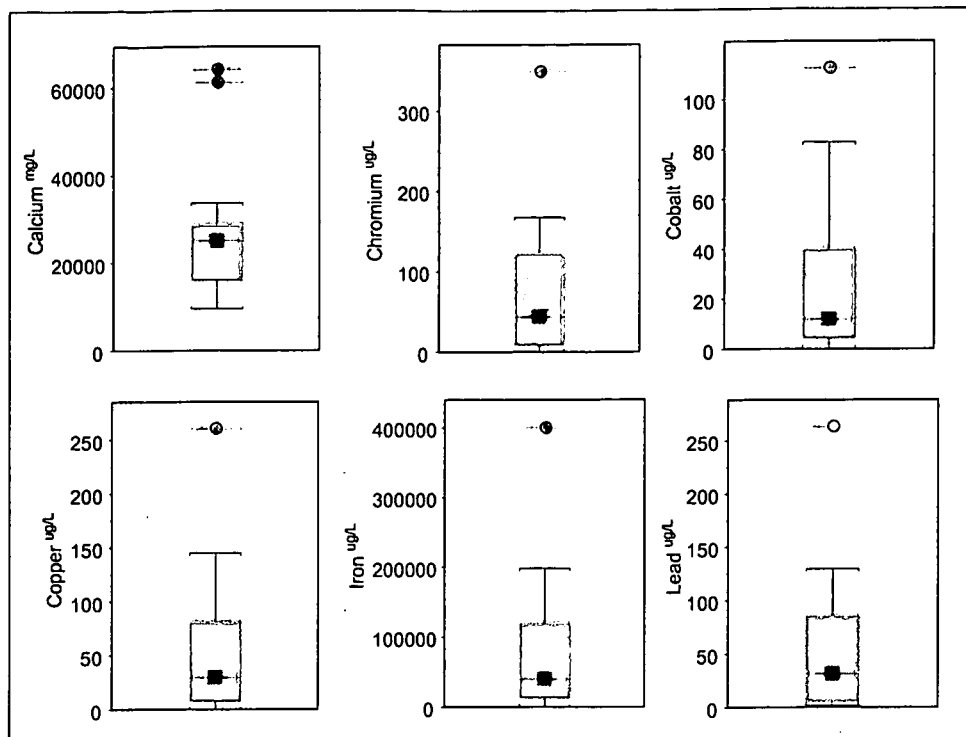


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

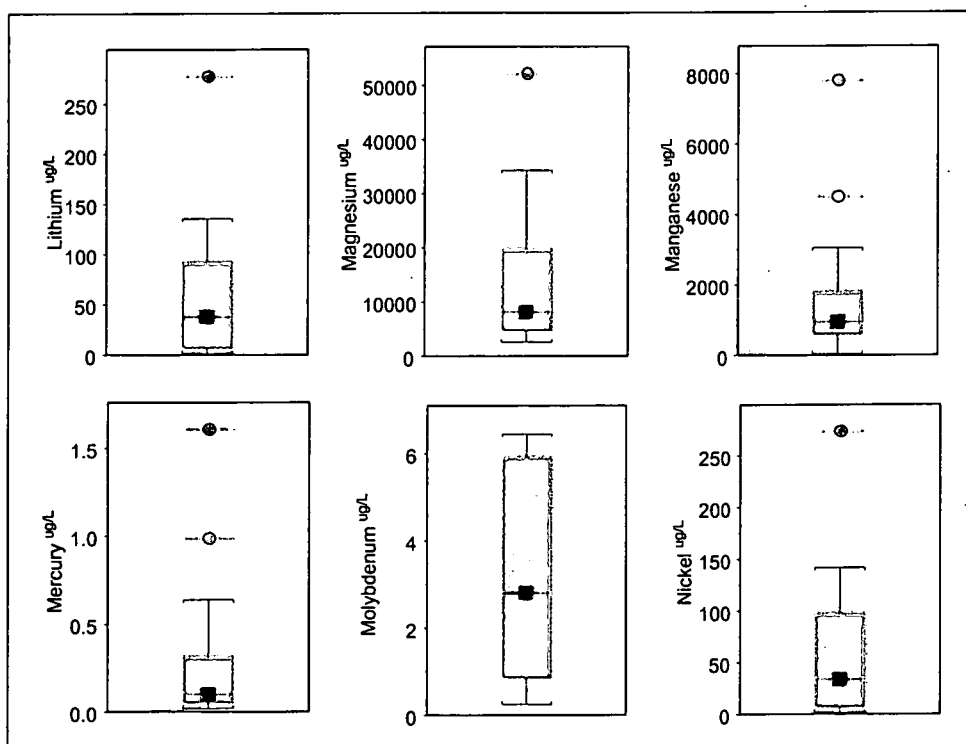


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

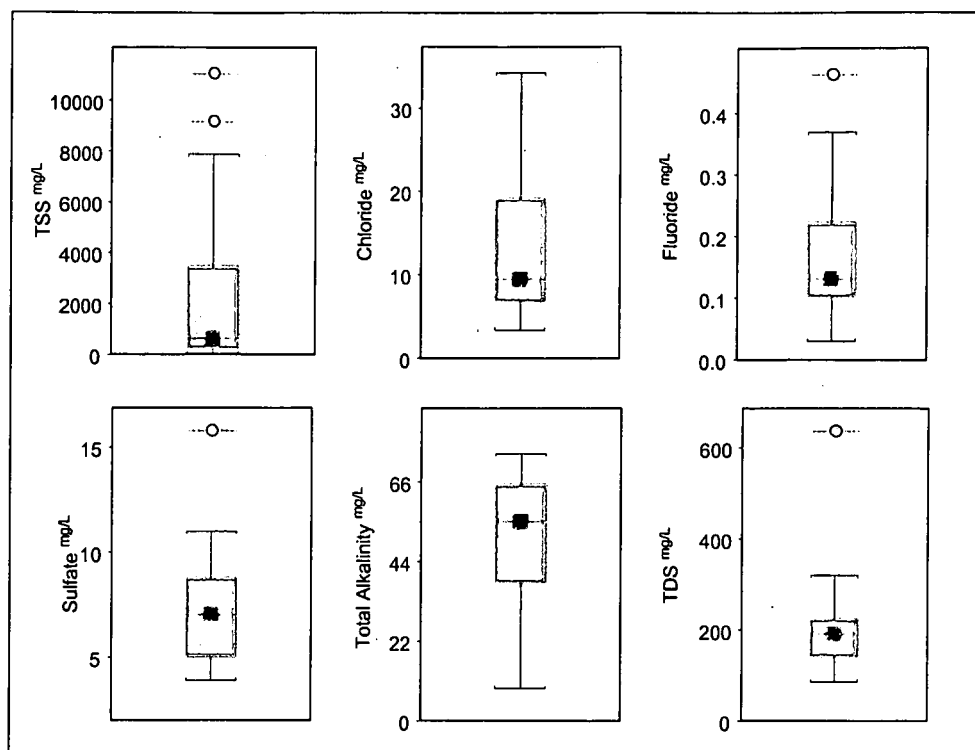


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

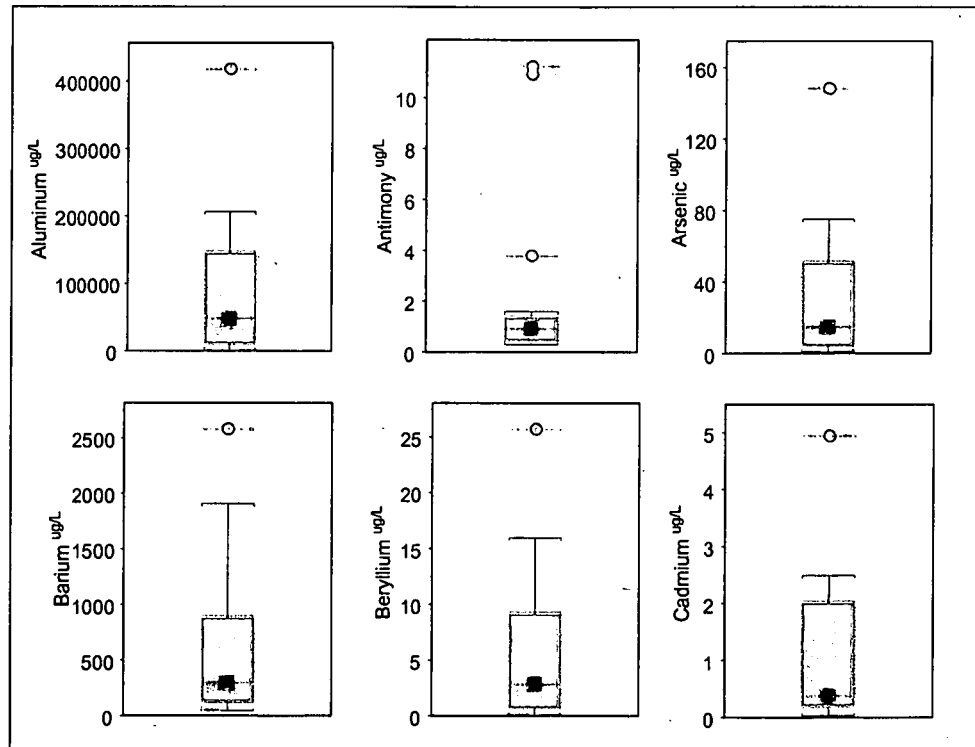


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

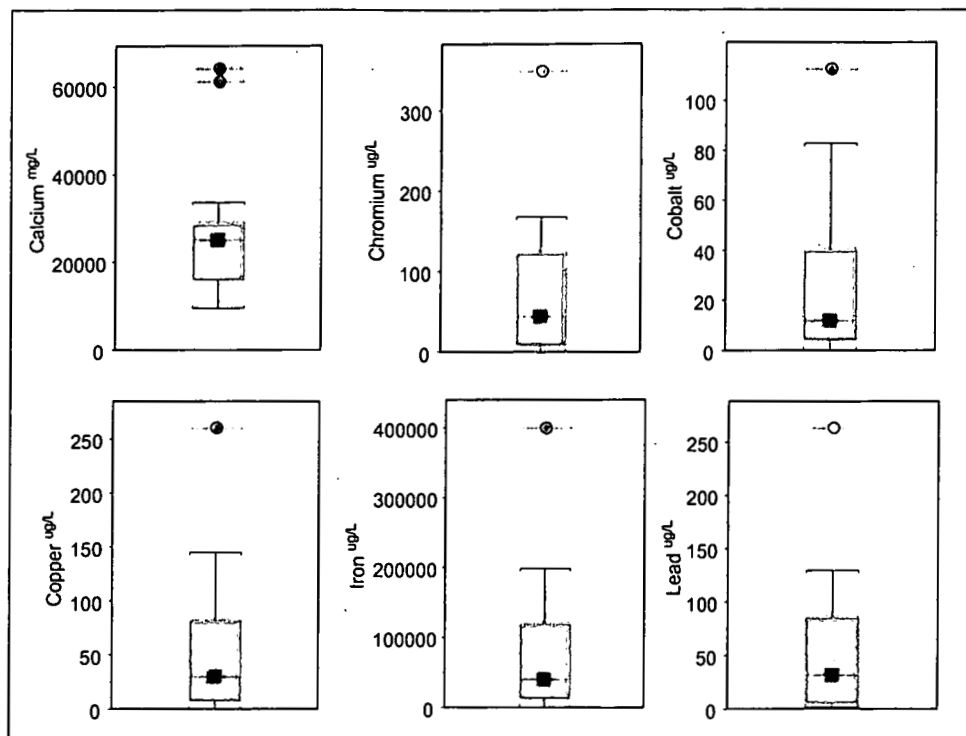


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

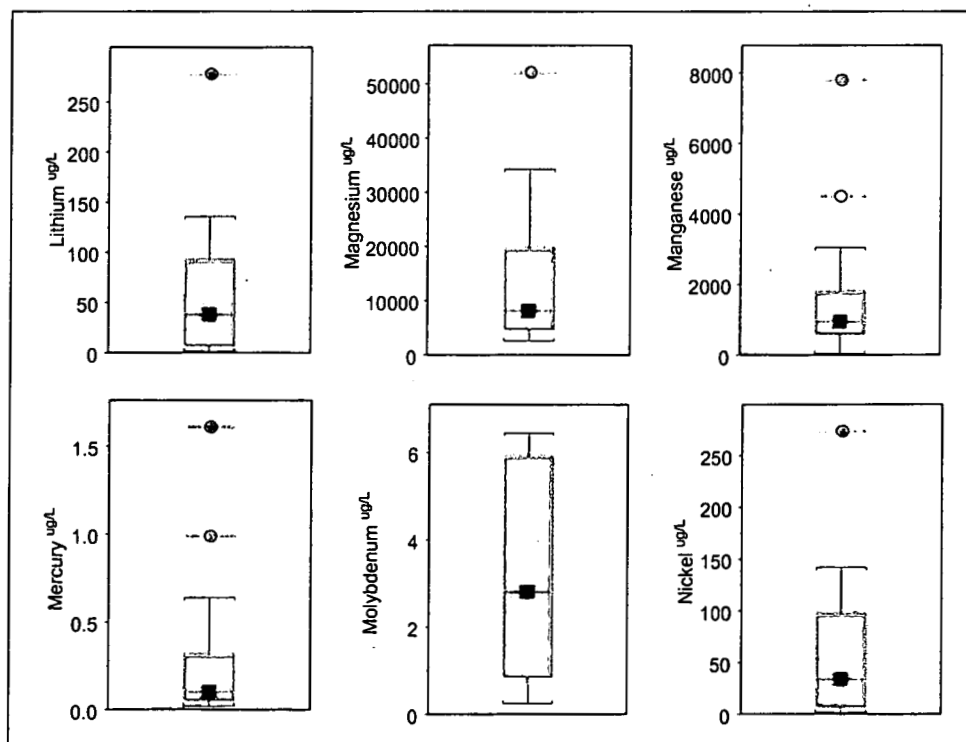


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

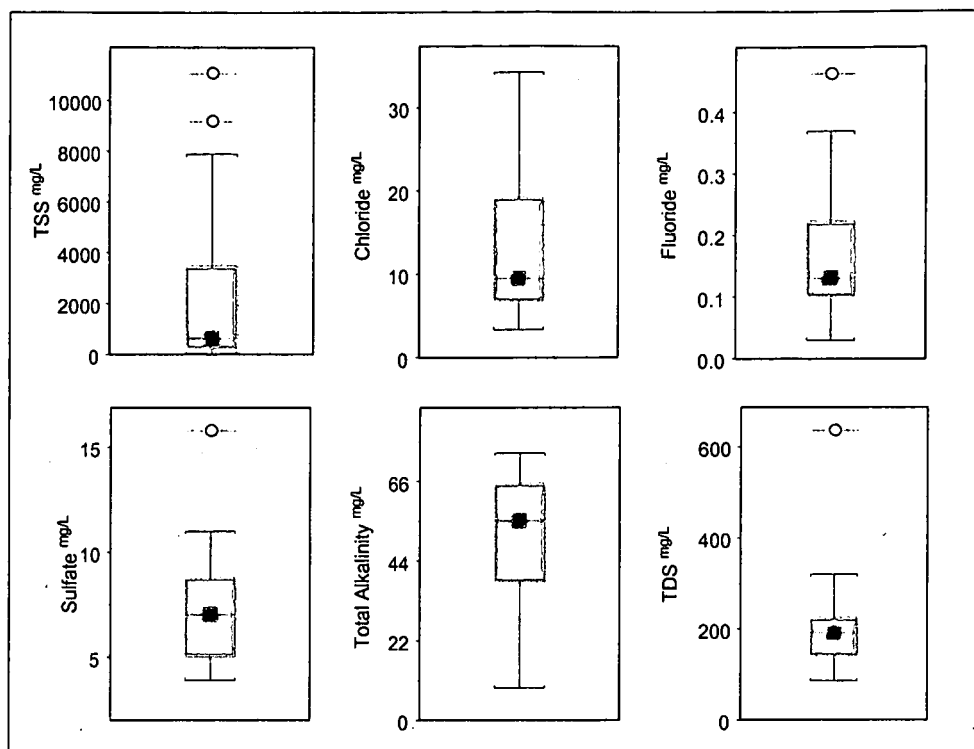


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

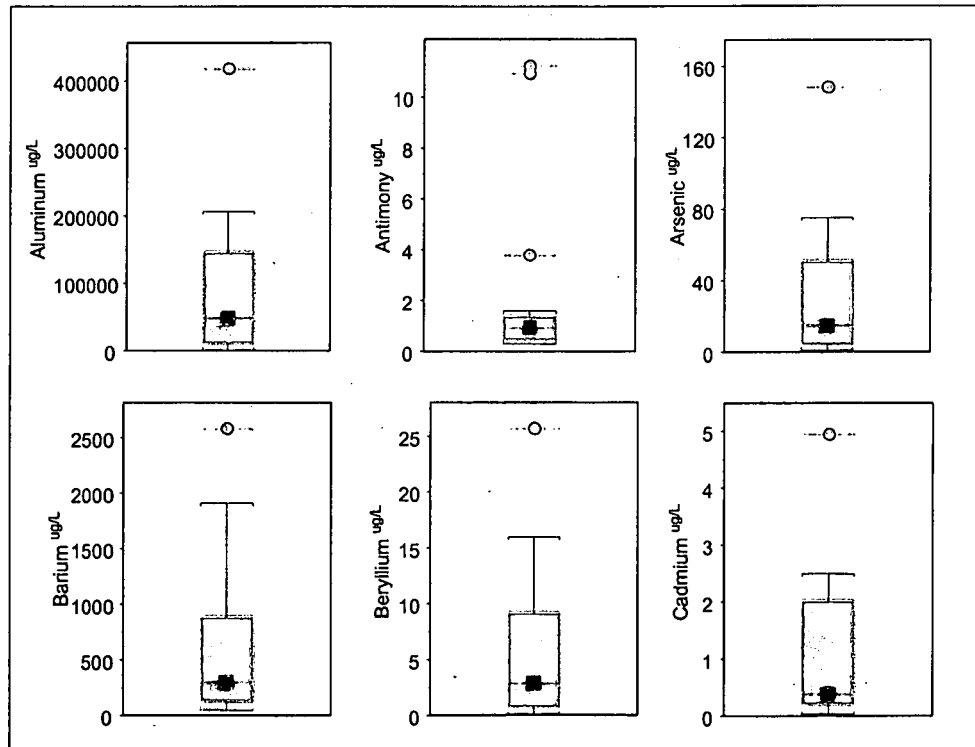


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

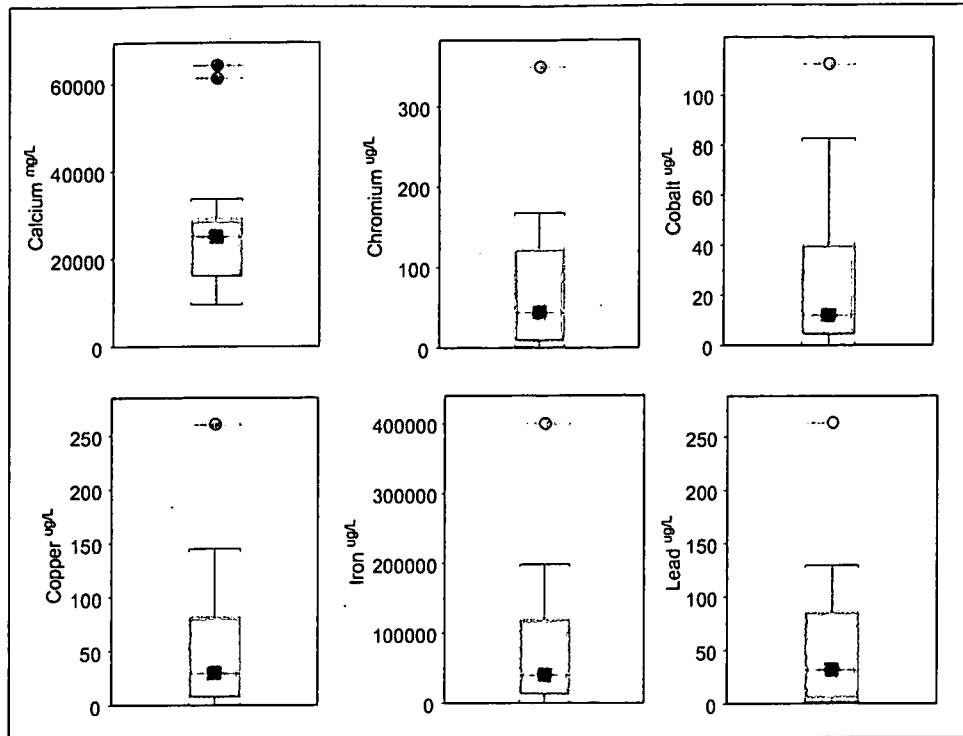


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

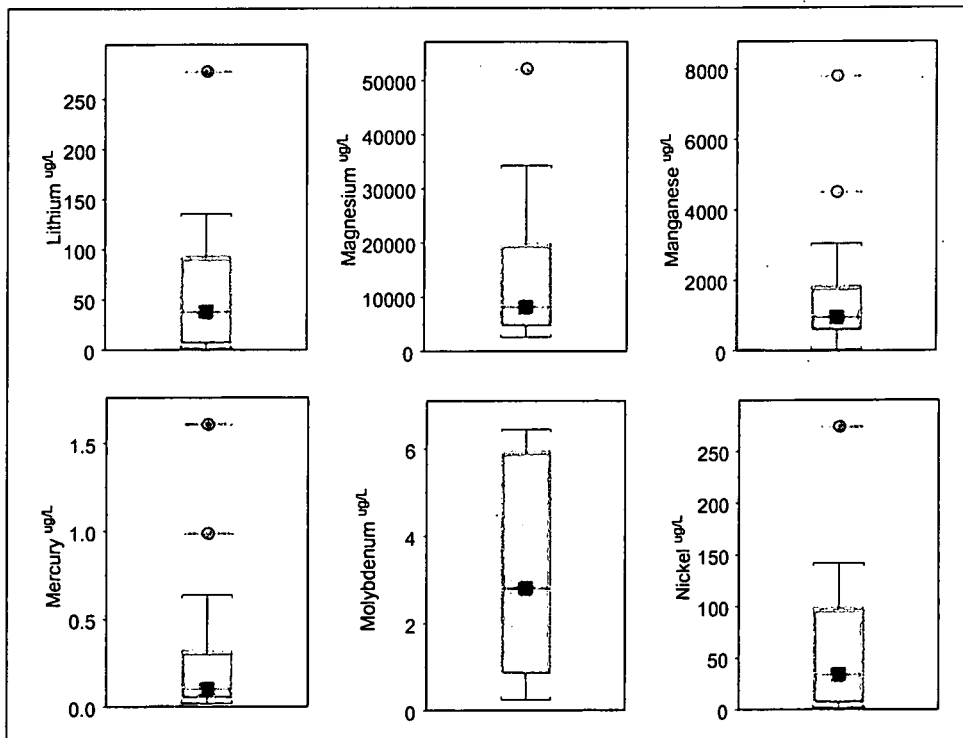


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

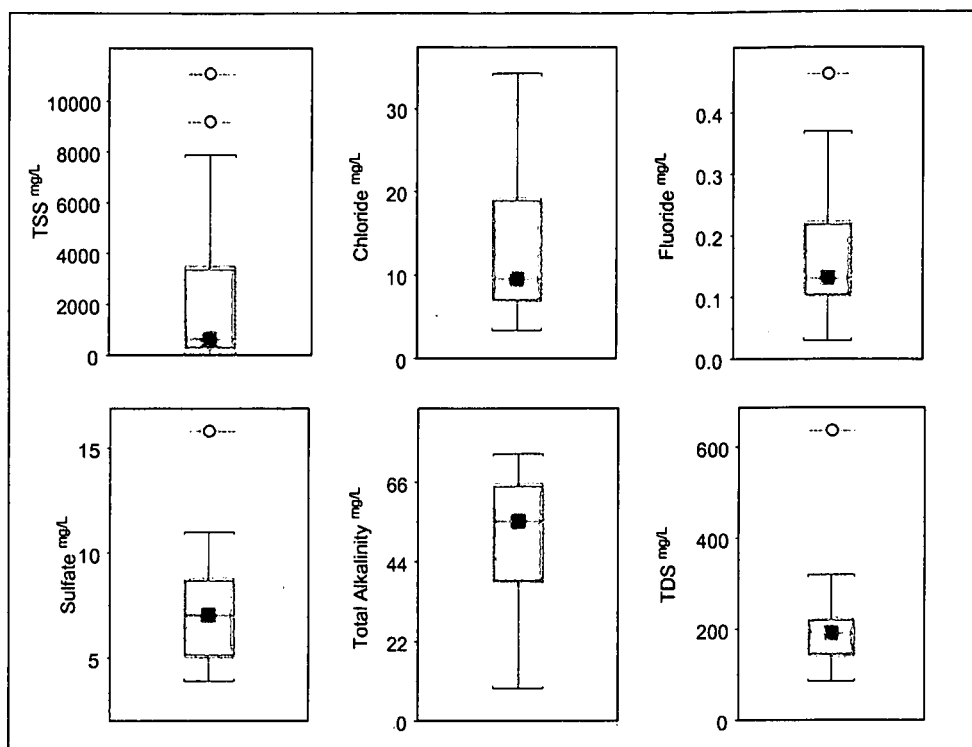


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

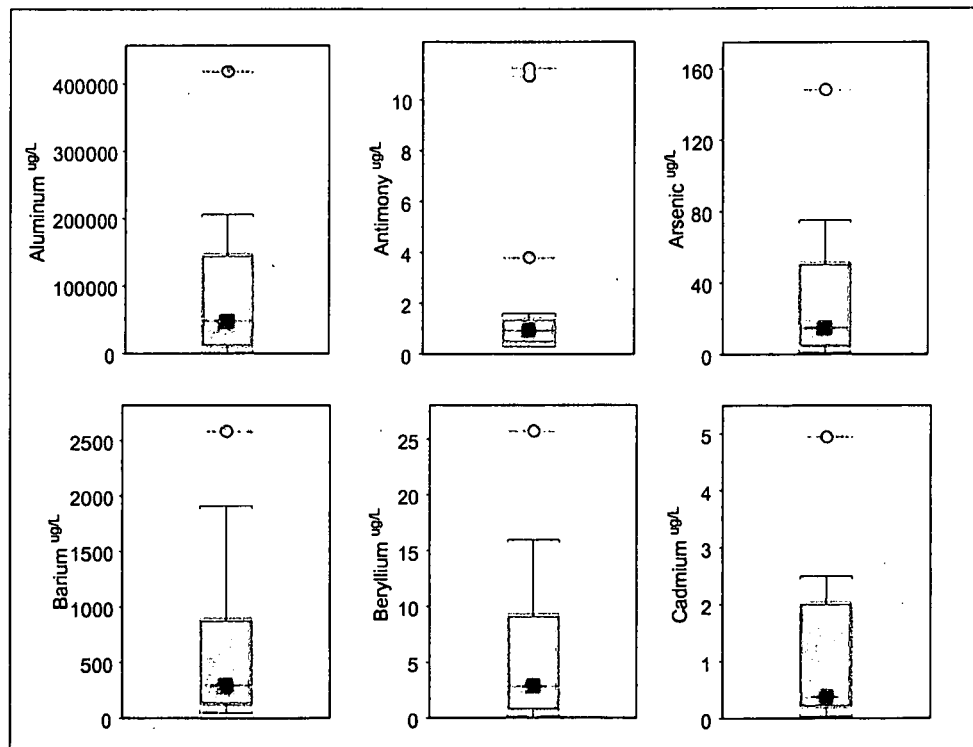


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

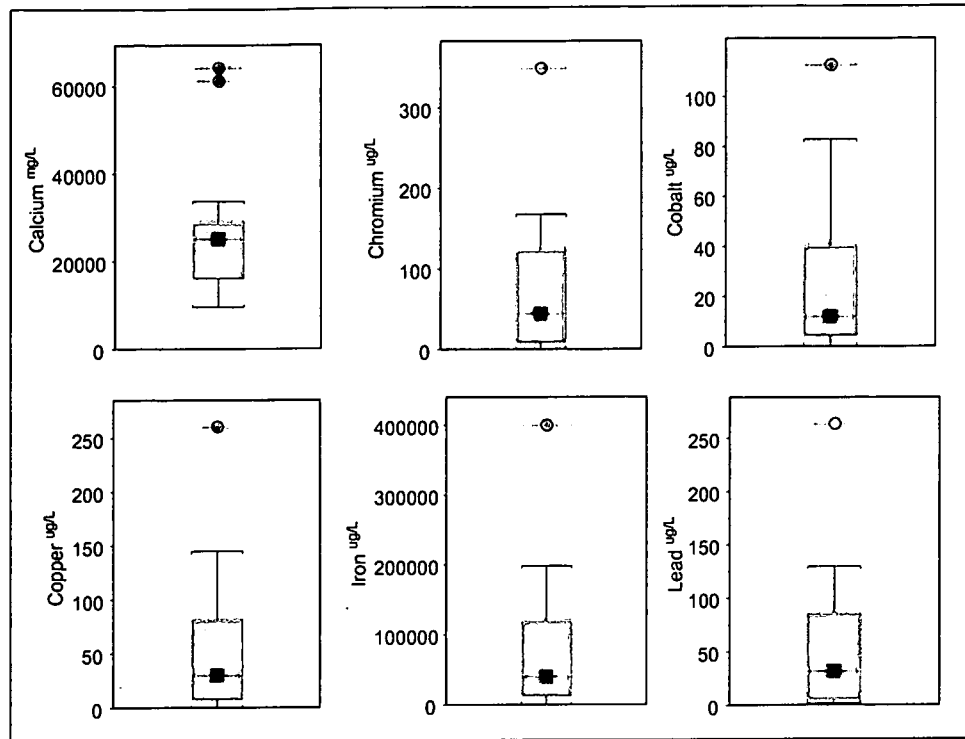


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

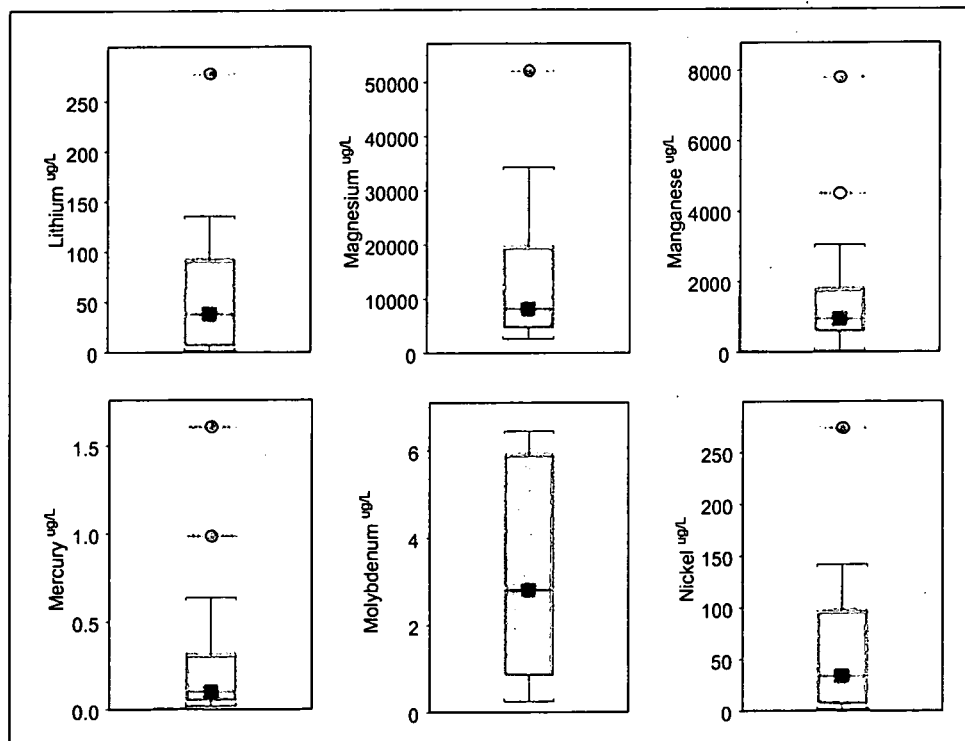


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

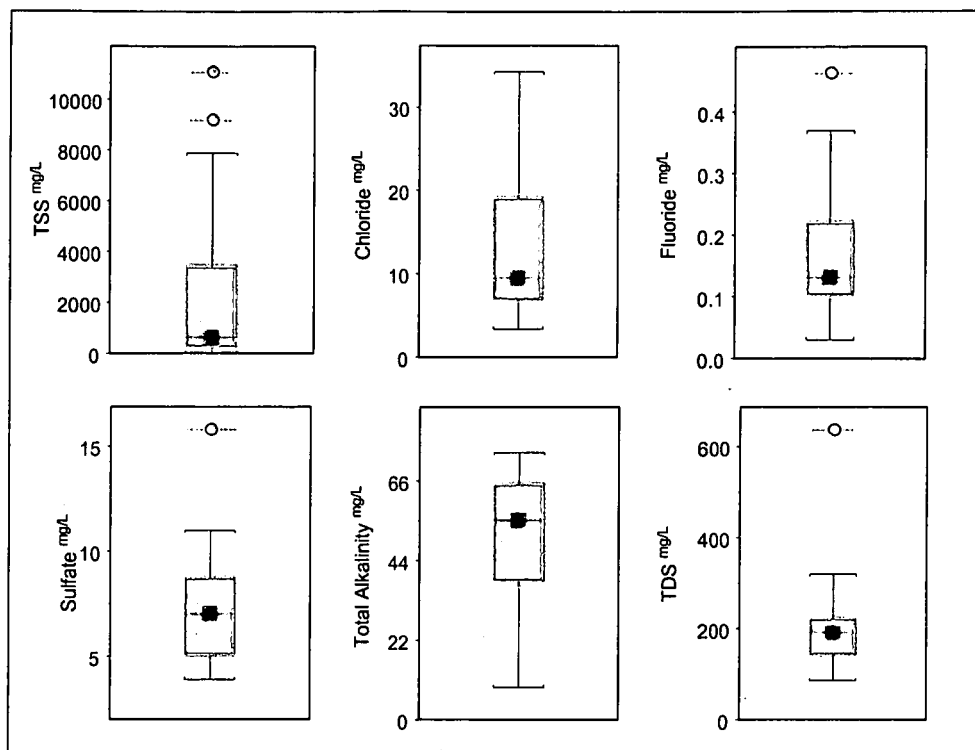


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

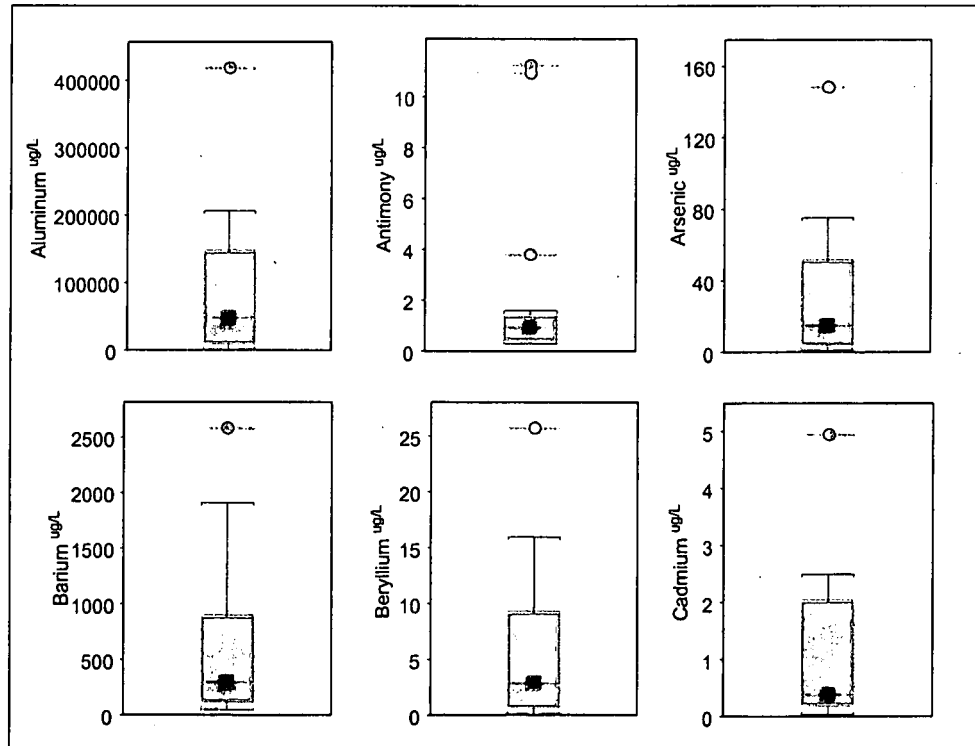


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

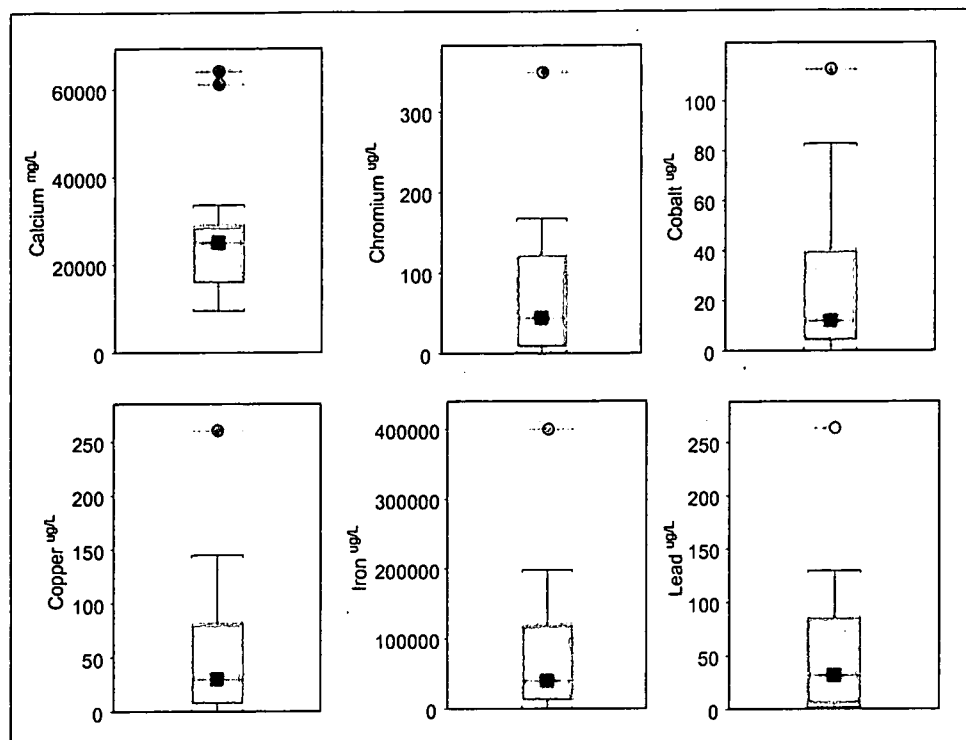


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

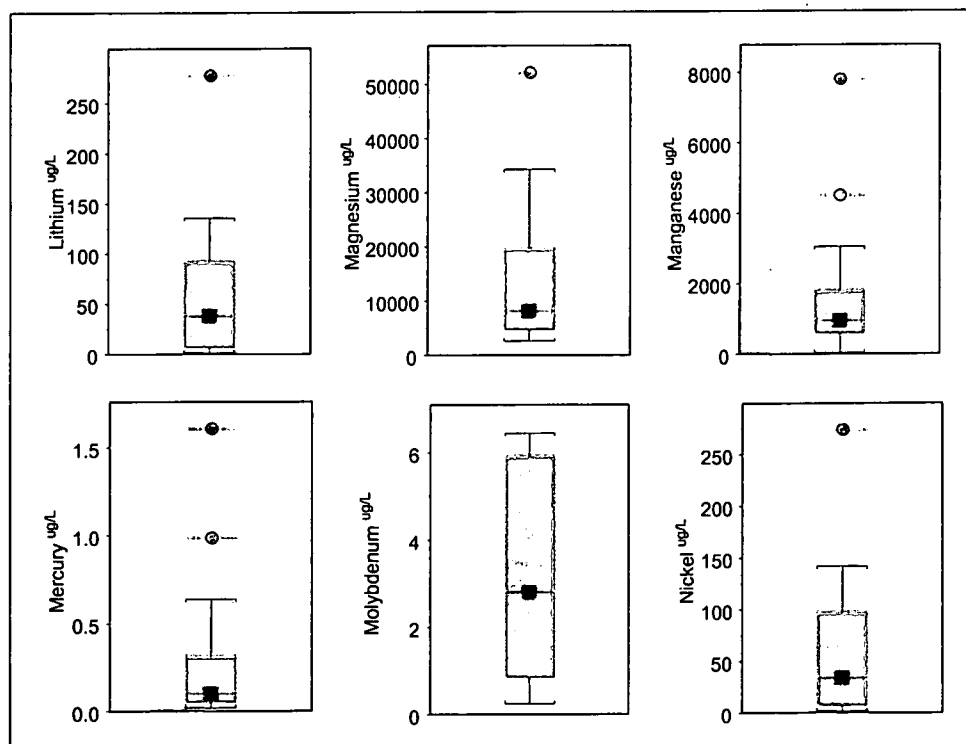


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

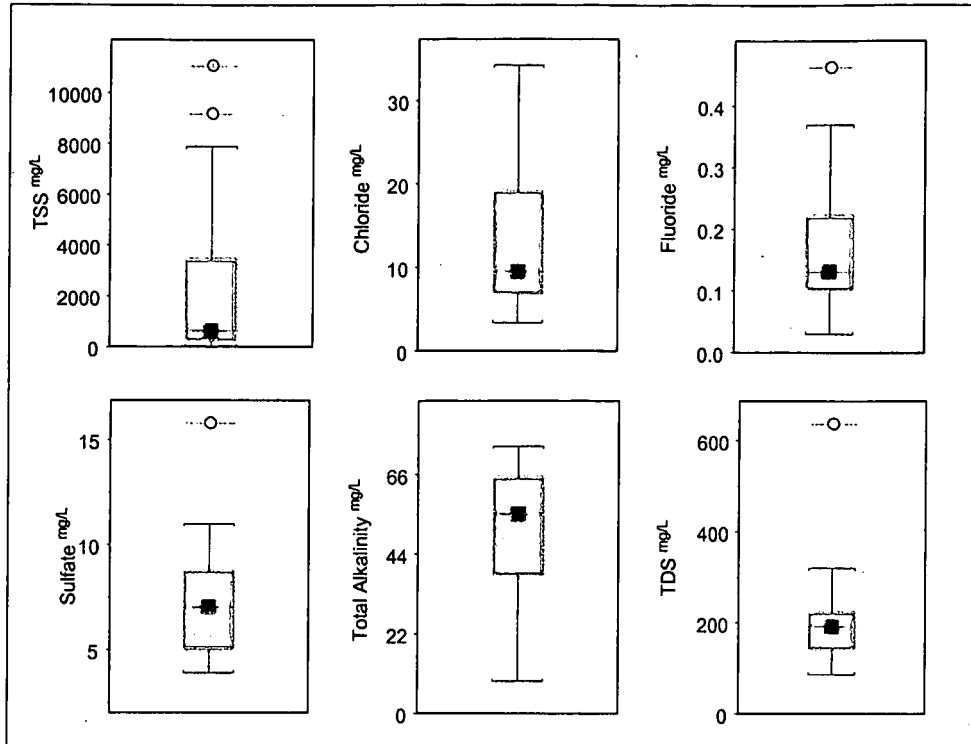


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

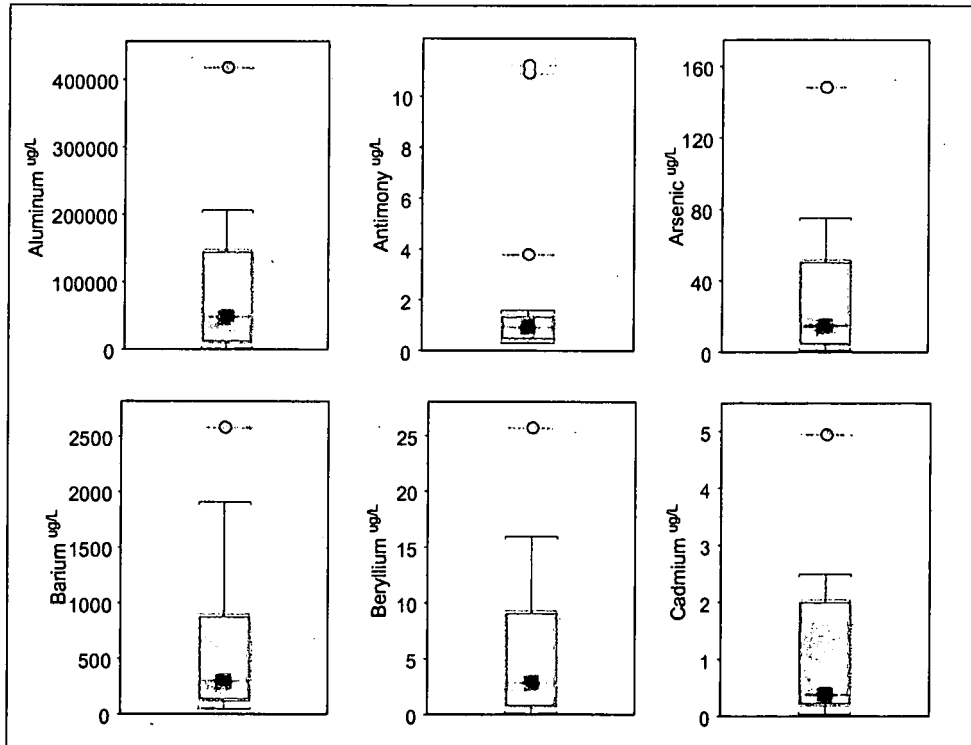


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

300

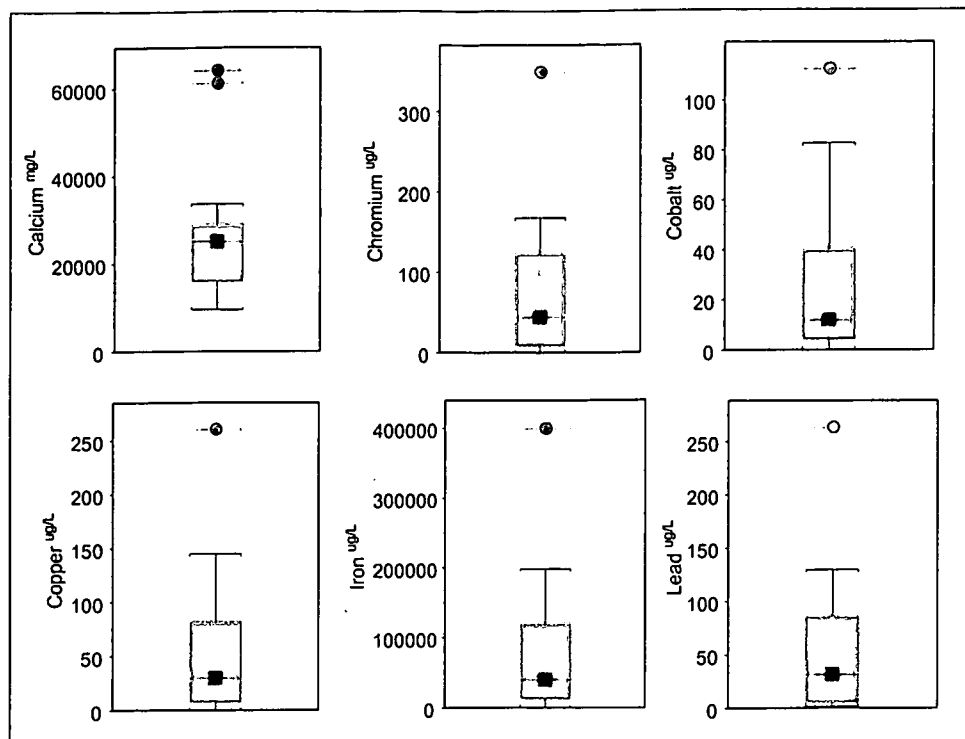


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

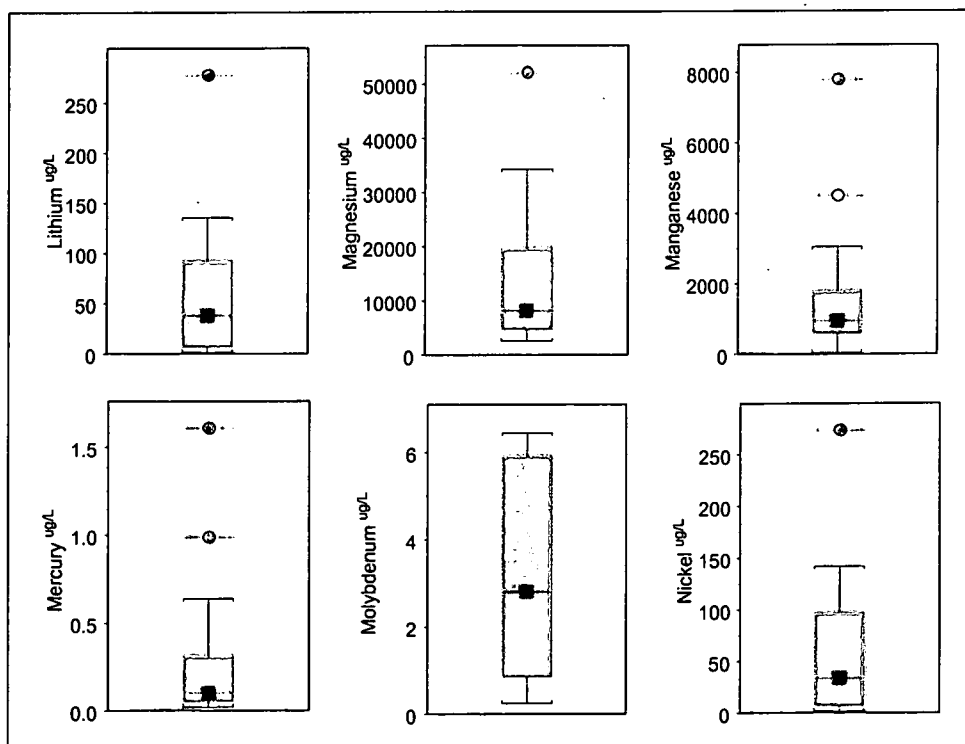


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

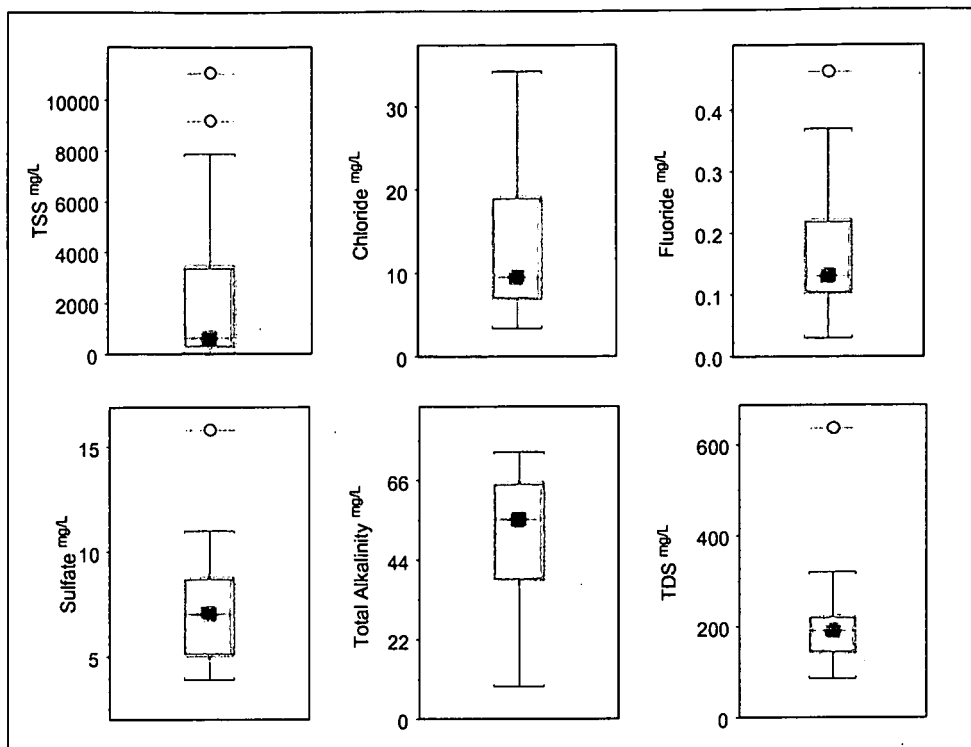


Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

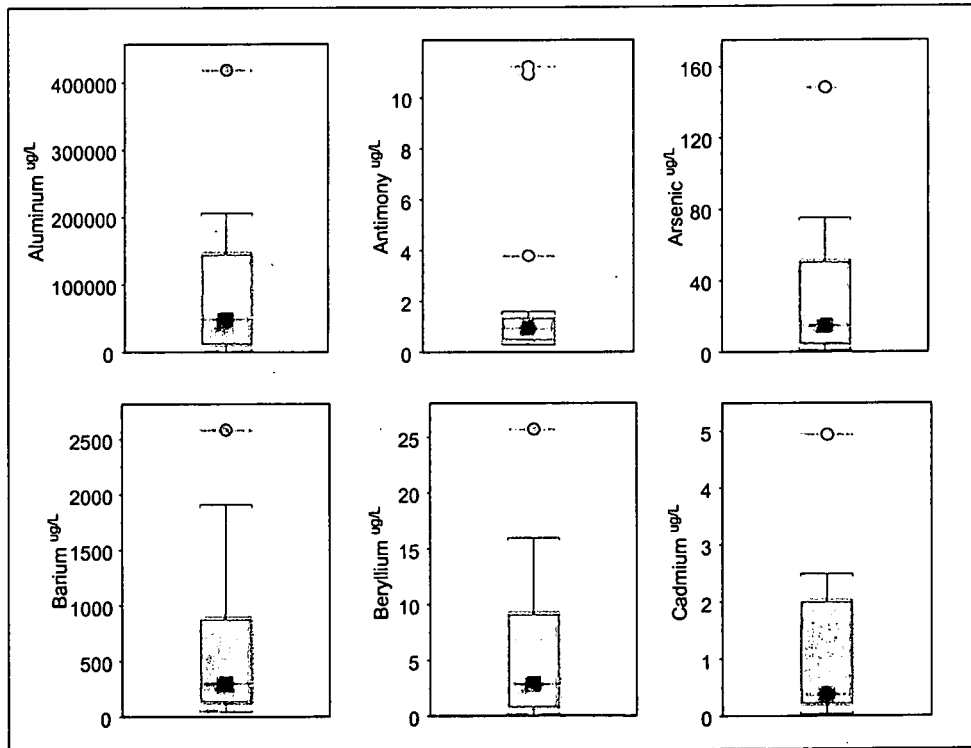


Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

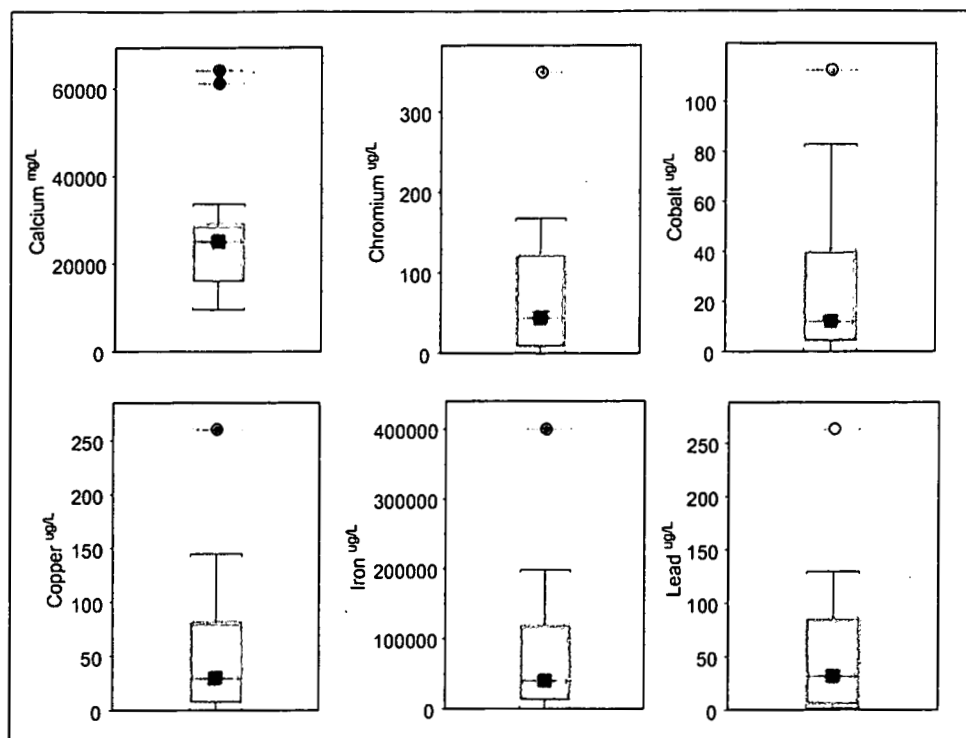


Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

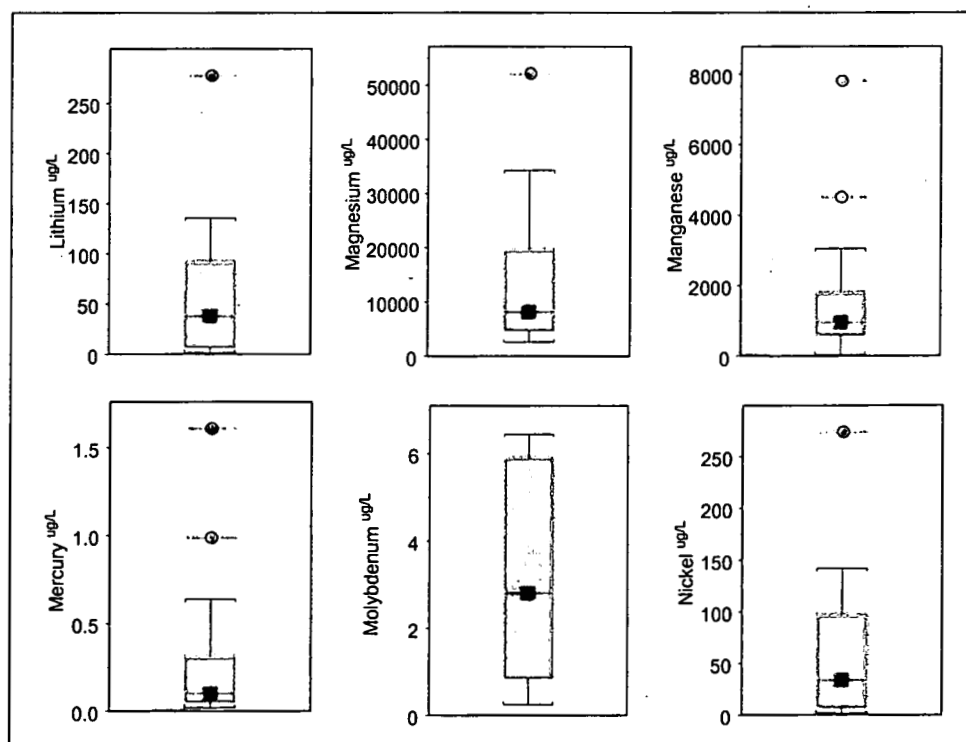


Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

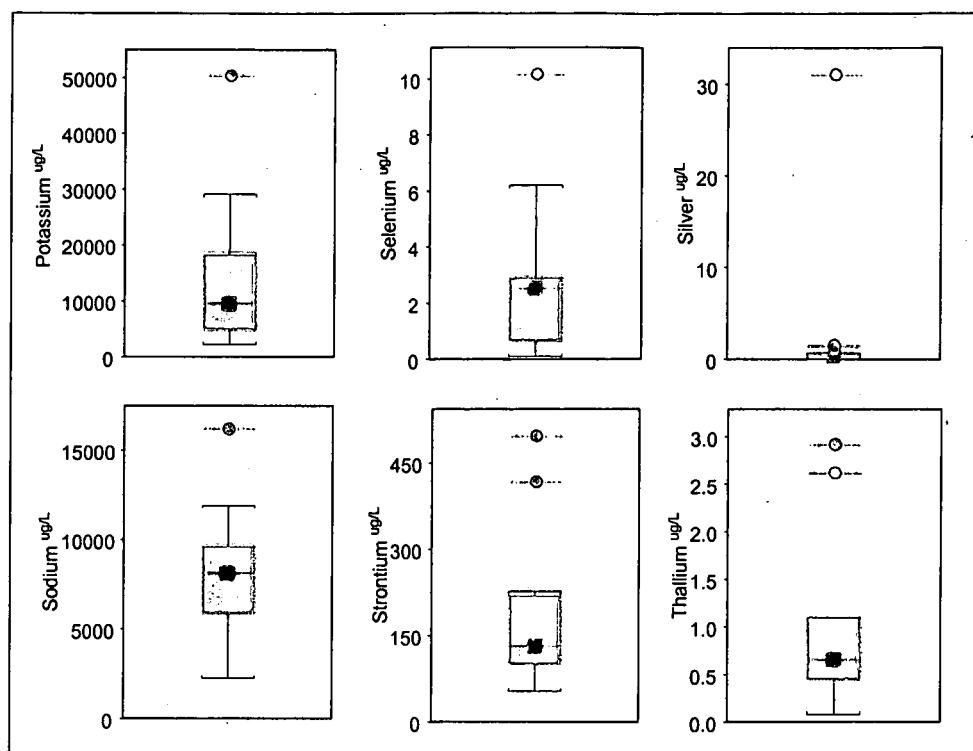


Figure 15-36. Total Metals Box Plots for Location GS06: Potassium through Thallium.

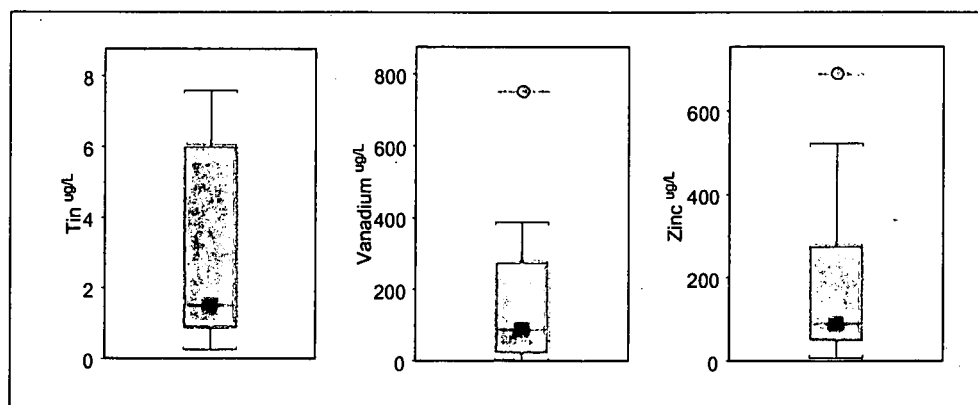


Figure 15-37. Total Metals Box Plots for Location GS06: Tin through Zinc.

15.3.7 Location SW134

Monitoring location SW134 is located north of the gravel pits north of the West Access Road. Table 15-12 presents the analyte-specific summary statistics for BZ samples collected at SW134. Figure 15-38 through Figure 15-43 show the analyte-specific box plots for BZ samples collected at SW134. Figure 3-123 shows the location of SW134. SW134 receives water pumped from the pits; the drainage area is undetermined.

Table 15-12. BZ Summary Statistics for Analytical Results from SW134 in WY97-01.

Analyte	Samples [N]	Percent Undetect	Median	85 th Percentile	Maximum
TSS [mg/L]	20	0%	43.0	100	1400
CHLORIDE [mg/L]	20	0%	9.80	11.7	17.0
FLUORIDE [mg/L]	20	0%	0.37	0.48	1.00
SULFATE [mg/L]	20	0%	37.5	43.2	48.2
TOTAL ALKALINITY [mg/L]	19	0%	80.0	91.2	230
TDS [mg/L]	20	0%	205	265	440
ALUMINUM [µg/L]	20	0%	2080	6554	26800
ANTIMONY [µg/L]	20	70%	0.47	2.34	11.2
ARSENIC [µg/L]	20	35%	1.30	2.26	9.30
BARIUM [µg/L]	20	0%	94.0	121	265
BERYLLIUM [µg/L]	20	35%	0.21	0.65	2.10
CADMIUM [µg/L]	20	90%	0.05	0.55	2.50
CALCIUM [µg/L]	20	0%	26850	30220	39050
CHROMIUM [µg/L]	20	20%	3.70	12.6	162
COBALT [µg/L]	20	25%	0.78	2.27	6.60
COPPER [µg/L]	20	15%	3.75	6.61	27.9
IRON [µg/L]	20	0%	1170	4184	16200
LEAD [µg/L]	20	25%	1.80	3.50	27.0
LITHIUM [µg/L]	17	0%	5.80	9.68	18.3
MAGNESIUM [µg/L]	20	0%	6055	6688	8510
MANGANESE [µg/L]	20	0%	28.4	56.8	181
MERCURY [µg/L]	16	94%	0.05	0.09	0.12
MOLYBDENUM [µg/L]	17	12%	1.20	2.82	6.45
NICKEL [µg/L]	20	20%	3.00	7.85	93.9
POTASSIUM [µg/L]	20	0%	1548	2079	5550
SELENIUM [µg/L]	20	65%	0.63	1.78	7.10
SILVER [µg/L]	20	90%	0.13	0.44	1.70
SODIUM [µg/L]	20	0%	14050	17698	20300
STRONTIUM [µg/L]	17	0%	157	177	218
THALLIUM [µg/L]	20	80%	0.47	1.02	6.80
TIN [µg/L]	17	76%	0.44	1.78	7.60
VANADIUM [µg/L]	20	5%	6.65	15.7	77.1
ZINC [µg/L]	19	0%	12.8	18.0	52.7

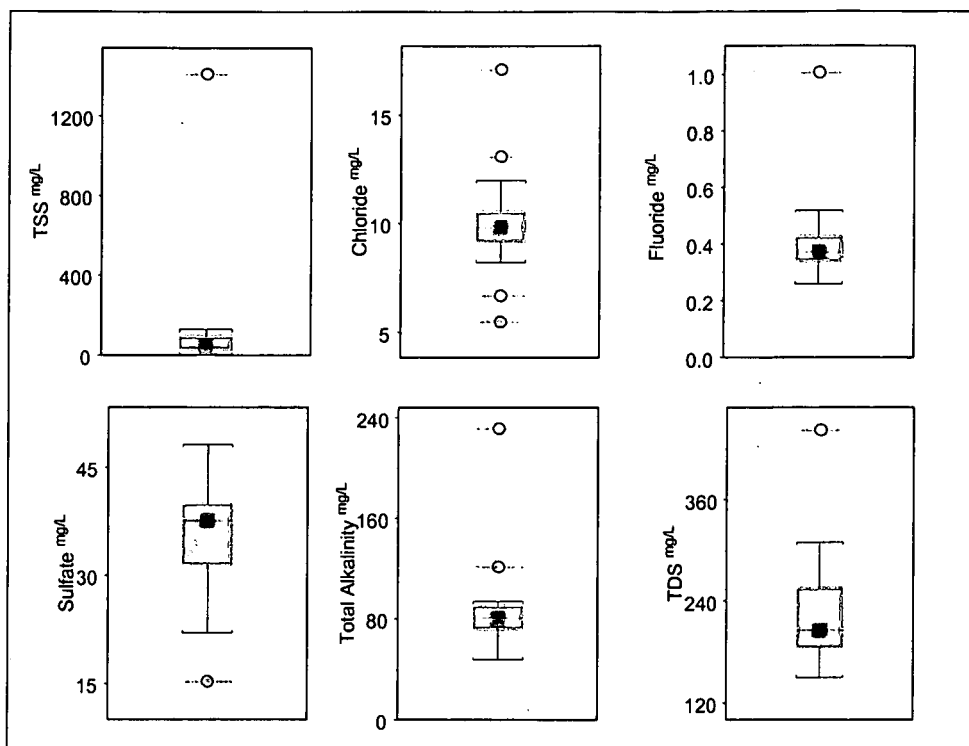


Figure 15-38. Water-Quality Parameter Box Plots for Location SW134.

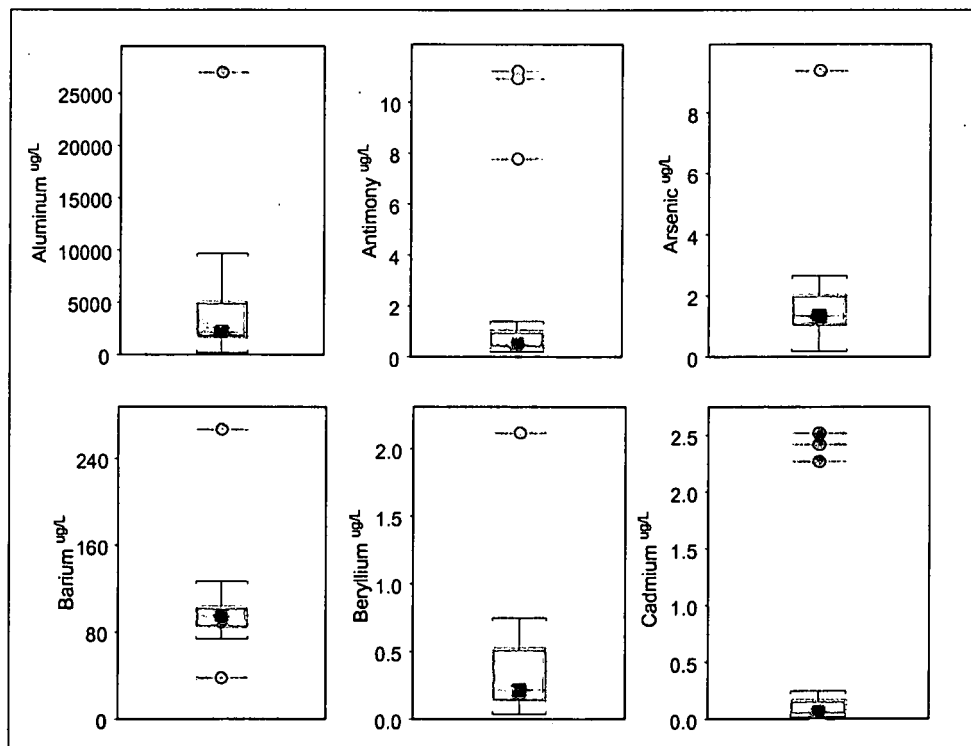


Figure 15-39. Total Metals Box Plots for Location SW134: Aluminum through Cadmium.

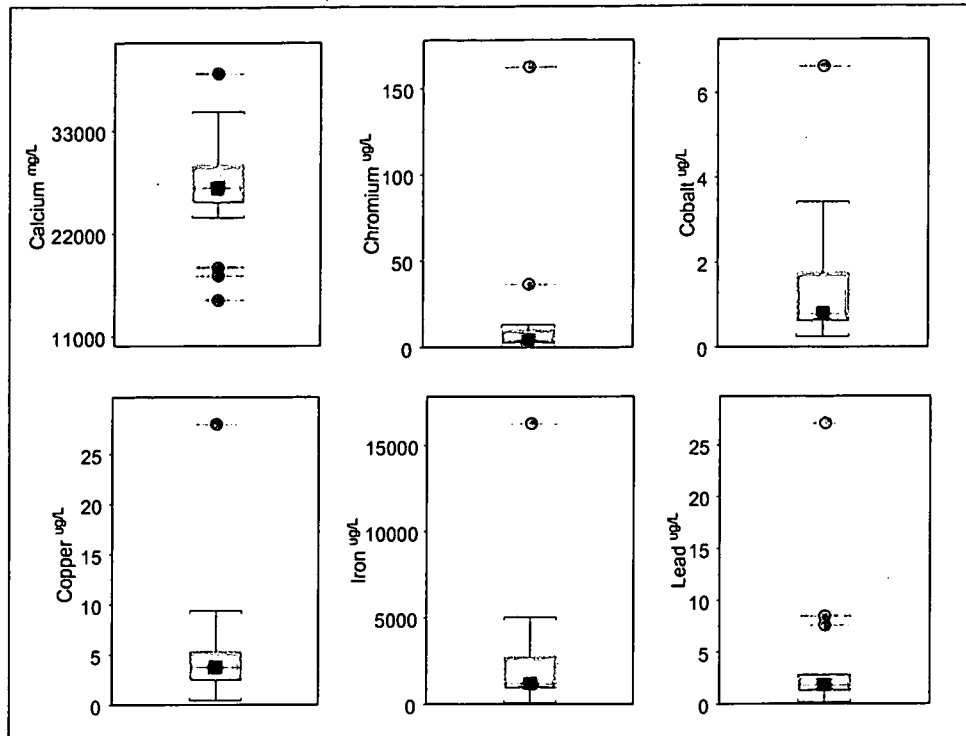


Figure 15-40. Total Metals Box Plots for Location SW134: Calcium through Lead.

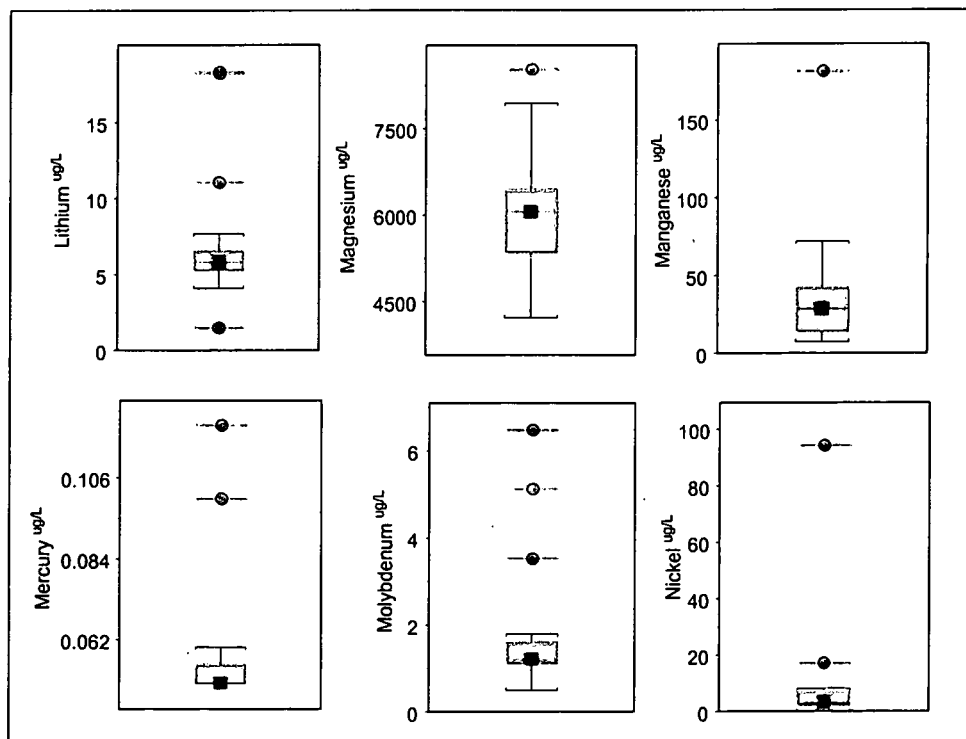


Figure 15-41. Total Metals Box Plots for Location SW134: Lithium through Nickel.

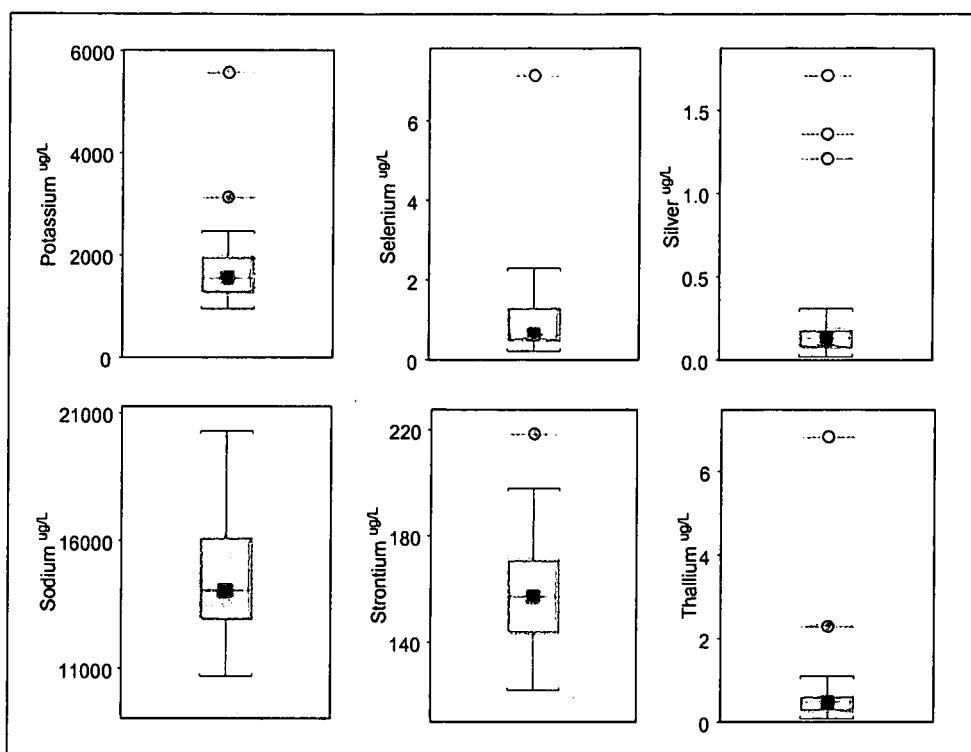


Figure 15-42. Total Metals Box Plots for Location SW134: Potassium through Thallium.

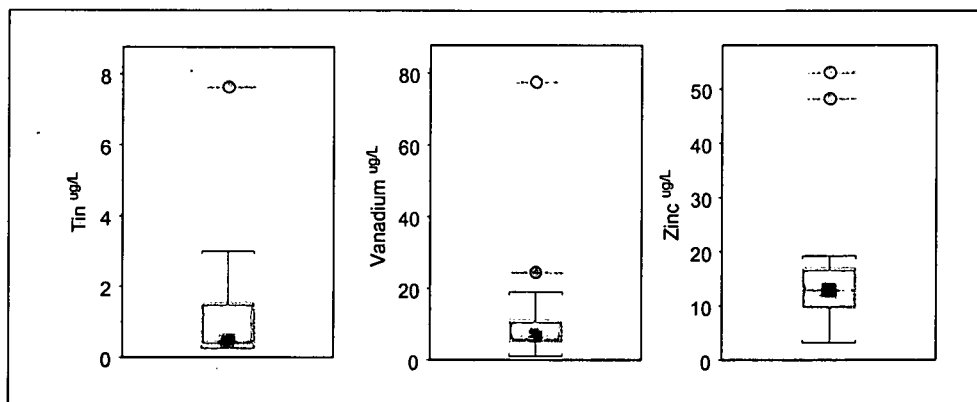


Figure 15-43. Total Metals Box Plots for Location SW134: Tin through Zinc.

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16. ANALYTICAL DATA QUALITY ASSESSMENT

The quality of surface-water monitoring data was assessed in terms of five data quality parameters. These parameters include precision, accuracy, representativeness, completeness, and comparability (PARCC) as described in the *Quality Assurance Program Plan for the Automated Surface-Water Monitoring Program*, RF/RMRS-2000-013, Revision 0, March 2000. This section summarizes the types of data available to assess the PARCC parameters.

With respect to the 34 gaging stations operated to collect samples during Water Year 2001, samples were obtained at 28 of the sites, with the remaining 6 either having no flow or no successful samples for the year. Samples results were evaluated from the 28 sites. Seven of the sampled sites were selected for the collection of field real/duplicate samples. For 15 of the 34 locations, carboy rinsate samples were prepared. On a per sample basis the overall frequency for field QC sampling is 1 sample in 13.5 (7.4 % of the total) during the period under evaluation. Duplicates were collected at a ratio of 1 in 42.6 (2.4 %) and rinsates at a ratio of 1 in 19.9 (5.0 %).

16.1 PARCC PARAMETERS

Precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters are indicators of data quality. Analytical data collected in support of the Surface Water Program was evaluated using the guidance developed in RMRS procedure *Quality Assurance Program Plan for the Groundwater Monitoring Program at Rocky Flats Environmental Technology Site*, 01-RF-00338. This procedure establishes the guidelines for evaluating analytical data with respect to the PARCC parameters that are indicators of data quality. The following paragraphs define these PARCC parameters in conjunction with this program.

16.1.1 Precision

The precision of a measurement is an expression of mutual agreement among duplicate measurements of the same property taken under prescribed similar conditions. Precision is a measure of the reproducibility of results and is evaluated by comparing results from field duplicate samples with results from associated real samples. Precision will be evaluated quantitatively by using two functions. The most typical measure for non-radiological analyses is the relative percent difference (RPD) term.³⁶ However, because of the stochastic nature of radioactivity, a statistical measure is better suited for evaluating radiological reproducibility. This statistical measure is referred to as the duplicate error ratio (DER)³⁶. The equations defining these two measures is provided below:

$$RPD = \left[\frac{|C_1 - C_2|}{(C_1 + C_2)/2} \right] 100$$

C_1 = Concentration of analyte in sample result

C_2 = Concentration of analyte in duplicate sample result

$$DER = \left[\frac{|C_1 - C_2|}{\sqrt{(TPU_{c1}^2 + TPU_{c2}^2)}} \right] 100$$

C_1 = Activity of analyte in sample result

C_2 = Activity of analyte in duplicate sample result

TPU = Total propagated uncertainty

³⁶ Because TPU is seldom reported (except for tritium analyses in some cases) in the laboratory analytical data packages, the 2-Sigma Error has been substituted for TPU in the DER formula for precision evaluations of americium, plutonium, uranium, and tritium real-duplicate pairs. Substitution of 2-Sigma Error for TPU results is a more conservative estimate of precision (larger DER value).

The purpose of the field duplicate samples is to evaluate the precision of the field sampling process. The acceptable RPD limit for non-radiological field duplicate measurements is $\leq 30\%$ for water. At least 85% of all quality control samples are required to comply with the established precision, or RPD goals. Duplicate samples exceeding the RPD criteria indicate that samples do not comply with the DQO specifications, and require an explanation of the deficiencies and a determination if additional sampling is required. Duplicate samples exceeding the DER criterion are interpreted as different at the 95% confidence level. The acceptable DER limit for radiological field duplicate measurements is ≤ 1.96 .

16.1.2 Accuracy

Accuracy is the degree of agreement of a measurement with an accepted reference or true value and is a measure of the bias in a system. The closer the measurement to the true value, the more accurate the measurement. All analytical data will be compared with the required analytical method and detection limit with the actual method used and its detection limit for each medium and analyte to assess the DQO compliance for accuracy.

16.1.3 Representativeness

Representativeness is a measure of the degree to which data accurately and precisely represent a characteristic of a population parameter at a sampling point. Representativeness is a qualitative term that should be evaluated to determine whether samples are collected in such a manner that the resulting data appropriately reflect the contamination present. Typically the discussion of representativeness is limited to an evaluation of whether analytical results for field samples are truly representative of environmental concentration or whether they may have been influenced by the introduction of contamination during collection and handling. This is usually assessed by evaluating the results of various blanks, specifically equipment rinsates. For this program, rather than typical equipment blanks, a location specific carboy was prepared using distilled water and submitted as a 'rinse' sample. This 'rinse' carboy was then prepared as any other sample and analyzed for the parameters specific to that location. Analytical data from the 'rinse' samples were used to assess how well the carboys were cleaned between field deployment and to determine if contamination was being introduced during sample preparation.

16.1.4 Completeness

Completeness is a measure of the amount of valid usable data obtained from a measurement system compared to the data expected to be obtained under normal conditions. Data usability was determined by evaluation of the PARCC parameters including completeness. Those data that were validated and need no qualification or are qualified as estimated or undetected were considered usable. Rejected data were not considered usable. Completeness was calculated following data evaluation. A completeness goal of 90% was been established for the Surface Water program. If this goal cannot be met, additional sampling may be necessary to adequately achieve project objectives. Completeness was calculated using the following equation:

$$Completeness = DP_u = \left[\frac{DP_t - DP_n}{DP_t} \right] 100$$

Where:

DP_u	=	Percentage of usable data points
DP_n	=	Non usable data points
DP_t	=	Total number of data points

16.1.5 Comparability

Comparability is a qualitative parameter. Consistency in the acquisition, handling, and analysis of samples is necessary for comparing results. Data developed under this investigation will be collected and analyzed using standard EPA or nationally recognized analytical methods and QC procedures to ensure comparability of results with other analyses performed in a similar manner.

16.2 PARCC EVALUATION BY ANALYTE GROUP

16.2.1 Metals Analyte Group

Precision

To evaluate precision for metals analyte group, real and duplicate results are paired and the Relative Percent Difference (RPD) QC criterion calculated. For Water Year 2001, there were 86 paired real/duplicate metal results out of 461 real sample results. Of the 86 real/duplicate pairs, 73 were used to calculate RPDs (Appendix B3 Table B-4). Of the 73 RPDs calculated, all 73 met the lab qualifier criteria listed in Appendix B.3 Table B-14 of which 65 were within the QC criterion of $\leq 30\%$ for water. Several of the analytes (tin, selenium, molybdenum, and arsenic) associated with the real/duplicate pairs that were above the 30% criterion were generally not considered to be contaminants of concern in RFETS surface-water. With 91.7 % of the RPDs in the acceptable range (above the QC criterion), the overall precision for metal analysis was above the goal of 85%.

Accuracy

To evaluate accuracy, reported detection limits (DL) were compared with method requirements and contract required detection limits (CRDL). The CRDL for metal analytes are listed in Appendix B.3 Table B-13. The data set was filtered to remove lab duplicates and other non-target records prior to evaluating the detection limits. Results that have detection levels which exceeded the CRDL and were "U" qualified were not included in the final summary. Less than 1 % of the reported results for 3 out of 26 metal analytes included in a typical metals suite were above the contract required detection limit (Table 16-1). Detection limits for all other metals analyses were within the CRDL.

Table 16-1. Summary of Metals Analyses Reported with DLs above the CRDLs

Analyte	CRDL (ug/L)	Number of Results Evaluated	Number of Results with Reported DL Exceeding CRDL	Percentage Above CRDL
Potassium	5000	99	1	1 %
Sodium	5000	99	1	1 %
Zinc	20	116	1	<1 %

Accuracy was also assessed using the results from spiked samples. The basic measure of accuracy was percent recovery (%R). The QC criteria for %R is adopted from the EPA and is 75 to 125 percent for all media. Appendix B.3 Table B-5 lists the 461 matrix spike recovery results reported for metals analyses for the Water Year 2001. Appendix B.3 Table B-6 shows the 34 (7.4 %) matrix spikes were outside the matrix spike criterion of 75-125%. Analytes with recoveries outside the QC criteria include aluminum, iron, lead, lithium, manganese, and mercury.

Representativeness

To evaluate representativeness, the results of prepared rinsates (as described above) were compared to the analyte specific detection limits. There were 15 rinsate sample carboys prepared (Appendix B.3 Table B-7) for metals during the Water Year 2001. Of the 15 rinsate carboys, all metals results were lab qualified as either "U" (non-detection) or "B" (detection was less than Contract Required Detection Limit but greater than the Instrument Detection Limit). Evaluation of the metal rinsate samples indicated that no significant metal contamination had been introduced during sample preparation or as a result of carboy cleaning activities.

Completeness

To evaluate completeness, the percent of rejected results was determined. Four (4) results out of a total of 461 real sample results were rejected during validation. Using the completeness formula listed in the previous section, 99.9% of the metals data records were considered acceptable. The completeness goal of 90% was met for metals analysis during Water Year 2001 and the data set is considered to be complete for the period under evaluation.

Comparability

No changes were made to the analytical procedures for metals analyses during the Water Year 2001. For each monitoring objective, sampling collection methodologies did not change and analytical results for the period of time under review were assumed to be comparable.

16.2.2 Radionuclide Analyte Group

Precision

To evaluate precision for radionuclide analyte group, real and duplicate results were paired and the Duplicate Error Ratio (DER) QC criterion calculated. For radionuclide analyses, there were 23 paired real/duplicate analytical results out of a total 1249 real (TR1) results. Of the 23 DERs calculated, all 23 meet the lab qualifier criteria listed in Appendix B.3 Table B-14. All paired results (100.0%) were below the 1.96 criterion and analytical precision was determined to be acceptable for the radiological analyses completed during Water Year 2001.

Accuracy

To evaluate accuracy, reported detection limits were compared with the required methods and contract required detection limits (CRDL). The contract required detection limits for radionuclide analyses of surface water samples performed during Water Year 2001 are listed in Appendix B.3 Table B-13. Three (3) radionuclide results (Table 16-2) out of the 1367 (TR1) results did not meet the CRDL. In general, the accuracy of radionuclide analyses appeared to be acceptable.

Table 16-2. Summary of Radionuclide Analyses with Reported DLs above the CRDLs

Analyte	CRDL (ug/L)	Number of Results Evaluated	Number Exceeding CRDL	Percentage Above CRDL
Americium	0.03	299	3	1.0%

Representativeness

To evaluate representativeness, the results of prepared rinsates (as described above) were compared to the analyte specific detection limits. During Water Year 2001, 64 individual rinsate sample results were evaluated. All rinsate analyses were below the RFCA surface-water Action Level and Standards (ALF) 0.15 pCi/L value. In general, the data evaluated from rinsate sample program indicated that no significant radionuclide activity was introduced during sample preparation or as a result of carboy cleaning activities for the period under review.

Completeness

To evaluate completeness, the percent of rejected results was determined. No radionuclide sample results of were rejected during validation. Using the completeness formula listed in the previous section, 100 % of the radiological data records are considered acceptable. The completeness goal of 90% was met for radionuclide analyses during Water Year 2001 and the data set is considered to be complete for the period under evaluation.

Comparability

No changes were made to analytical procedures and data were assumed to be comparable for Water Year 2001.

16.2.3 Water-Quality Parameters Analyte Group

Precision

To evaluate precision for the water-quality parameter analyte group, real and duplicate results were paired and the Relative Percent Difference (RPD) QC criterion calculated. For water quality analyses, a total of 9 paired real-duplicate samples results out of 278 real (TR1) results. Of the 9 duplicate/real pairs, all were of sufficient quality to be used for calculating the RPD precision measurements (Appendix B3 Table B-10). Of the 9 calculated, 8 meet the lab qualifier criteria (Appendix B3 Table B-14) of $\leq 30\%$ (only 1 failed). These results indicate an acceptable level of precision associated with WQP analyses.

Accuracy

To evaluate accuracy, reported detection limits were compared with the required methods and contract required detection limits (CRDL). The CRDL for water-quality analytes are listed in Appendix B.3 Table B-13. None of the 278 evaluated samples had detection limits above the contract required detection limit.

Accuracy can also be assessed using the results from spiked samples. The basic measure of accuracy is the percent recovery (%R). The QC criteria for %R is adopted from the EPA and is 75 to 125 percent for all media. Appendix B3 Table B-11 includes the matrix spike results for WQPs for the period under review. All of the 8 reported results were within the acceptable 75-125% recovery range. Analytical results for water quality parameters are considered to be accurate for Water Year 2001.

Representativeness

To evaluate representativeness, the results of prepared rinsates (as described above) were compared to the analyte specific detection limits. Of the 16 rinsate results evaluated, 14 were lab qualified as "U" (non-detection) and 2 samples had measurable concentrations. Evaluation of the water quality data indicates that there was no significant contaminants were introduced during sample preparation or as a result of carboy cleaning activities for the period under review.

Completeness

To evaluate completeness, the percent of rejected results is determined. None of the 278 sample results were rejected during validation. Using the completeness formula listed in the previous section, 100% of the water quality data records were considered acceptable. The completeness goal of 90% was met and the analyses were considered to be complete for the period under evaluation.

Comparability

As stated in previous sections, no changes were made to the analytical procedures during the period under review. All WQP analyses performed during Water Year 2001 were considered to be comparable.

16.3 PARCC DATA QUALITY EVALUATION SUMMARY

Precision

Precision was evaluated by pairing real and duplicate results and calculating the appropriate analyte group QC criterion. Table 16-3 provides a summary of RPD and DER calculations. Appendix B.3 Table B-15 lists the lab qualifier criteria for screening and reporting of precision calculations. All analytical data obtained by the surface-water monitoring program exceeded the desired precision criterion.

Table 16-3. Summary of Calculated RPDs and DERs by Analyte Group

Analyte Group	QC Criterion for RPD or DER Values	Total Number of Real/Duplicate Pairs	Number of RPDs/DERs Calculated	Number of RPDs/DERs Meeting Lab Qualifier Criteria	Number of Acceptable RPDs/DERs Results	Overall Precision (Goal = 85%)
Metals	Less than 30%	23	23	23	23	100 %
Radionuclides	Less than 1.96	86	73	73	65	91.7 %
Water-Quality Parameters	Less than 30%	9	9	8	7	87.5 %

Accuracy

Accuracy was evaluated by comparing the reported detection limits were with the required methods and contract required detection limits (CRDL). Based on the review of detection limits for each analyte group, reported detection limit exceeded the CRDL for two of the three analyte groups. Only about 1 % the metal analytes during Water Year 2001 had reported results that exceeded the CRDL. For radiological analyses, less than 1 % of the results that were reported have detection limits that exceeded the CRDL. For the water quality analytes, none of the analytes were reported with detection limits that exceeded the CRDL.

Based on the review of matrix spike recoveries, approximately 7.4 % of the metals evaluated had matrix spike criterion suggesting the results received for metals may not be entirely accurate.

Representativeness

As determined by a review of prepared rinsate carboy results (as described above), analytical data for all three analyte groups were representative and no quantifiable level of contamination was introduced during the sample preparation or carboy cleaning activities for the period under review.

Completeness

Completeness was evaluated using the completeness formula listed in the previous section, the number of rejected results, and the total number of results. For metals, 4 results out of 461 were rejected resulting in a completeness of 99.9 %. For radionuclides, no results were rejected resulting in a completeness of 100 %. For water quality parameters, no results were rejected resulting in a completeness of 100 %. Almost 100% of all the results received for all 3 analyte groups were evaluated as acceptable. The completeness goal of 90% was met for all three analyte groups and the analytical results were considered to be complete for the period under evaluation.

Comparability

No changes were made to analytical procedures for the period under review. Sampling protocols were constant and overall all analytical results were assumed to be comparable for Water Year 2001.

17. REFERENCES

- Carter, R.W., and Davidian, Jacob, 1968, *General Procedure for Gaging Streams: U.S. Geological Survey Techniques of Water-Resources Investigations*, Book 3, Chap. A6.
- CDPHE, USDOE, USEPA, 1996. *Final Rocky Flats Cleanup Agreement*, Federal Facility Agreement and Consent Order, CERCLA VIII-96-21 RCRA (3008(h)) VIII-96-01, State of Colorado Docket #96-07-19-01.
- Chapra, S.C., Canale, R.P., 1988, *Numerical Methods for Engineers*, 2nd Edition, McGraw-Hill, Inc., New York, New York.
- Chow, V.T., Maidment, D.R., and L.W. Mays, 1988, *Applied Hydrology*, McGraw-Hill, Inc., New York, New York.
- Gilbert, R.O., 1987, *Statistical Methods for Environmental Pollution Monitoring*, Van Nostrand Reinhold, New York, New York.
- Hunt, W.F., et al, 1981, *U.S. Environmental Protection Agency Intra-Agency Task Force Report on Air Quality Indicators*, EPA-450/4-81-015. Environmental Protection Agency, National Technical Information Service, Springfield, VA.
- Iman, R.L. and W.J. Conover, 1983, *A Modern Approach to Statistics*, John Wiley & Sons, New York, New York.
- Kaiser-Hill, DOE RFFO, 2000. *Rocky Flats Environmental Technology Site Integrated Monitoring Plan FY2001*, Golden, Colorado, September.
- Rantz, S.E., 1982, *Measurement and Computation of Streamflow: Volume 1. Measurement of Stage and Discharge*, U.S. Geological Survey Water-Supply Paper 2175, U.S. Department of the Interior, U.S. Government Printing Office, Washington, D.C.
- Rantz, S.E., 1982. *Measurement and Computation of Streamflow: Volume 2. Computation of Discharge*, U.S. Geological Survey Water-Supply Paper 2175, U.S. Department of the Interior, U.S. Government Printing Office, Washington, D.C.
- RFCSS, 2001. *Storm Water Pollution Prevention Plan*, 21000 – SWPPP, Golden, Colorado, April.
- RFCSS, 2002. *Spill Prevention, Control, and Countermeasures Plan*, 21000 – SPCC, Revision 1, Golden, Colorado, March.
- RMRS, L.L.C., 1997a, *Progress Report #1 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0*, RF/RMRS-97-089.UN, Rocky Flats Environmental Technology Site, Golden, CO, September.
- RMRS, L.L.C., 1997b, *Progress Report #2 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0*, RF/RMRS-97-115.UN, Rocky Flats Environmental Technology Site, Golden, CO, November.
- RMRS, L.L.C., 1997c, *Progress Report #3 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 2*, RF/RMRS-97-131.UN, Rocky Flats Environmental Technology Site, Golden, CO, December.
- RMRS, L.L.C., 1998a, *Final Report to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek*, RF/RMRS-98-234.UN, Rocky Flats Environmental Technology Site, Golden, CO, April.
- RMRS. 1998b. *Evaluation of Data for Usability in Final Reports*, RF/RMRS-98-200, Golden, Colorado.

RMRS, 1999. *Source Evaluation Report for Point of Evaluation GS10*, RF/RMRS-99-376, Golden, Colorado, July.

RMRS, 2000a. *Sampling and Analysis Plan for Automated Synoptic Surface-Water and Sediment Sampling for the GS10 Source Investigation*, Revision 0, Golden, Colorado, March.

RMRS, 2000b. *Quality Assurance Program Plan for the Automated Surface-water Monitoring Program*, RF/RMRS-2000-013, Revision 0, Golden, Colorado, March.

RMRS, 2001a. *RFETS Automated Surface-Water Monitoring FY01 Work Plan*, RF/RMRS-01-341, Golden, Colorado, January.

RMRS, 2001b. *Final Source Evaluation Report for Point of Evaluation GS10, Water Years 2000 – 2001*, RF/EMM/WP-01-003, Golden, Colorado, August.

U.S. Department of Energy, 1980. *Final Environmental Impact Statement (Final Statement to ERDA 1545-D)*, Rocky Flats Plant Site, Golden, CO, April.

U.S. Department of Energy, 1992. *Historical Release Report for the Rocky Flats Plant*, Rocky Flats Environmental Technology Site, Golden, CO, June.

U.S. Environmental Protection Agency, 1989. *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities: Interim Final Guidance*, Office of Solid Waste Management Division, Washington, D.C., April.

U.S. Government, 2000. *U.S. Code of Federal Regulations, Title 40, Chapter I, Part 302.4, Appendix B*, October.

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APPENDIX A: HYDROLOGIC DATA

A.1 DISCHARGE DATA

This section includes mean daily discharge tables and hydrographs by monitoring location and water year. Electronic copies of the discharge grids are included in the Appendix Tables directory on the CD-ROM disc. The grids are given in a single Microsoft Excel file. Each file contains separate worksheets for each monitoring location.

A.1.1 GS01: Woman Creek at Indiana Street

Table A-1. WY01 Discharge Summary for GS01: Woman Creek at Indiana Street.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.075	0.127	0.122	0.080	0.191	0.304	0.221	0.054	0.000	0.000	0.000
2	0.000	0.097	0.107	0.053	0.074	0.197	0.236	0.319	0.033	0.000	0.000	0.000
3	0.000	0.105	0.098	0.049	0.179	0.171	0.195	1.069	0.027	0.000	0.000	0.000
4	0.000	0.142	0.123	0.044	0.248	0.142	0.178	3.311	0.032	0.000	0.000	0.000
5	0.000	0.159	0.120	0.105	0.236	0.139	0.175	30.979	0.061	0.000	0.000	0.000
6	0.000	0.170	0.153	0.216	0.291	0.165	0.175	6.208	0.050	0.000	0.000	0.000
7	0.000	0.155	0.272	0.178	0.176	0.182	0.148	1.877	0.024	0.000	0.000	0.000
8	0.000	0.154	0.243	0.113	0.263	0.175	0.127	1.150	0.021	0.000	0.000	0.000
9	0.000	0.147	0.196	0.099	0.111	0.168	0.107	0.794	0.021	0.000	0.000	0.000
10	0.000	0.137	0.191	0.077	0.115	0.275	0.117	0.629	0.026	0.000	0.000	0.000
11	0.000	0.134	0.143	0.100	0.126	0.339	0.407	0.528	0.024	0.000	0.000	0.000
12	0.000	0.122	0.122	0.099	0.131	0.352	1.056	0.438	0.020	0.000	0.000	0.000
13	0.000	0.112	0.060	0.076	0.187	0.544	2.100	0.364	0.023	0.000	0.000	0.000
14	0.000	0.106	0.085	0.073	0.235	0.656	1.863	0.290	0.005	0.010	0.000	0.000
15	0.000	0.110	0.150	0.048	0.249	0.342	1.193	0.253	0.017	0.000	0.000	0.000
16	0.000	0.097	0.159	0.081	0.193	0.256	0.703	0.198	1.086	0.000	0.000	0.000
17	0.000	0.093	0.111	WR	0.141	0.291	0.542	0.193	1.251	0.000	0.000	0.000
18	0.000	0.101	0.115	WR	0.215	0.380	0.447	0.296	1.134	0.000	0.000	0.000
19	0.000	0.129	0.100	WR	0.241	0.277	0.336	0.328	1.301	0.000	0.000	0.000
20	0.000	0.163	0.081	WR	0.321	0.237	0.253	0.317	1.292	0.000	0.000	0.000
21	0.000	0.163	0.082	WR	0.337	0.217	0.251	0.543	1.245	0.000	0.000	0.000
22	0.000	0.193	0.086	WR	0.304	0.217	0.921	0.546	1.334	0.000	0.000	0.000
23	0.000	0.194	0.071	0.115	0.306	0.198	2.765	0.298	1.263	0.000	0.000	0.000
24	0.000	0.175	0.071	0.130	0.267	0.197	3.883	0.185	1.108	0.000	0.000	0.000
25	0.000	0.177	0.080	0.115	0.195	0.224	1.298	0.125	0.141	0.000	0.000	0.000
26	0.000	0.168	0.065	0.104	0.183	0.326	0.746	0.082	0.029	0.000	0.000	0.000
27	0.000	0.165	0.070	0.103	0.153	0.616	0.530	0.067	0.019	0.000	0.000	0.000
28	0.000	0.170	0.098	0.109	0.143	0.400	0.424	0.091	0.009	0.000	0.000	0.000
29	0.044	0.145	0.126	0.128	NA	0.301	0.363	0.190	0.005	0.000	0.000	0.000
30	0.082	0.132	0.118	0.104	NA	0.401	0.283	0.132	0.000	0.000	0.000	0.000
31	0.104	NA	0.095	0.131	NA	0.309	NA	0.080	NA	0.000	0.000	NA

Partial Data

Flow Rate

Average	0.007	0.140	0.120	0.103	0.204	0.287	0.738	1.681	0.388	0.000	0.000	0.000
Maximum	0.104	0.194	0.272	0.216	0.337	0.656	3.883	30.979	1.334	0.010	0.000	0.000
Minimum	0.000	0.075	0.060	0.044	0.074	0.139	0.107	0.067	0.000	0.000	0.000	0.000

Partial Data

Discharge

Cubic Feet	19907	362039	320970	222076	492350	767585	1911713	4501668	1006774	835	0	0
Gallons	148915	2708237	2401019	1661242	3683035	5741935	14300608	33674814	7531194	6245	0	0
Acre-Feet	0.46	8.31	7.37	5.10	11.30	17.62	43.89	103.34	23.11	0.02	0.00	0.00

Partial Data

Annual Summaries for WY01

Fr ³ /Sec	0.310
GPM	139.0
Cubic Feet	9605916
Gallons	71857244
Acre-Feet	220.52

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.2 GS02: Mower Ditch at Indiana Street

Table A-2. WY01 Discharge Summary for GS02: Mower Ditch at Indiana Street.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	0
Gallons	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.000
GPM	0.000
Cubic Feet	0
Gallons	0
Acre-Feet	0.000

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.3 GS03: Walnut Creek at Indiana Street

Table A-3. WY01 Discharge Summary for GS03: Walnut Creek at Indiana Street.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.011	0.000	0.000	0.000	0.002	0.000	0.005	0.004	0.034	1.548	0.000	0.002
2	0.015	0.000	0.001	0.000	0.002	0.001	0.004	0.007	0.032	1.564	0.381	0.000
3	0.011	0.000	0.001	0.000	0.002	0.001	0.004	0.004	1.819	0.038	1.538	1.081
4	0.002	0.000	0.002	0.000	0.001	0.001	0.004	4.821	0.054	1.731	0.938	0.000
5	0.005	0.000	0.003	0.000	0.001	0.001	0.004	14.264	0.046	0.898	0.871	0.000
6	0.003	0.000	0.003	0.000	0.001	0.001	0.004	10.037	0.035	0.654	0.962	0.000
7	0.003	0.000	0.004	0.000	0.001	0.001	0.003	7.155	0.017	0.536	1.101	0.000
8	0.003	0.000	0.005	0.000	0.002	0.001	0.005	5.554	0.012	0.498	1.093	0.004
9	0.003	0.000	0.005	0.000	0.001	0.000	0.005	5.257	0.010	0.284	0.850	0.000
10	0.002	0.000	0.004	0.000	0.002	0.004	0.007	4.726	0.007	0.048	0.812	0.000
11	0.002	0.000	0.004	0.212	0.002	0.004	0.013	4.065	0.007	0.051	1.508	0.000
12	0.002	0.000	0.004	0.776	0.001	0.460	0.083	3.799	0.009	0.021	1.308	0.000
13	0.002	1.396	0.003	0.874	0.001	1.343	0.588	3.417	0.015	0.028	1.348	0.000
14	0.002	3.127	0.004	0.893	0.001	1.369	1.143	3.654	0.011	0.100	1.353	0.000
15	0.002	2.775	0.003	0.995	0.002	1.460	0.886	3.553	0.006	0.056	1.446	0.000
16	0.002	2.615	0.003	1.031	0.001	1.442	0.292	3.226	0.004	0.014	1.847	0.000
17	0.002	2.526	0.002	1.122	0.001	1.306	0.066	3.133	0.007	0.011	2.304	0.000
18	0.001	1.258	0.001	1.116	0.001	1.205	0.009	2.573	0.006	0.009	2.090	0.000
19	0.001	1.126	0.001	0.980	0.001	1.269	0.001	1.999	0.003	0.008	1.892	0.000
20	0.000	1.612	0.000	0.805	0.000	1.463	0.000	1.513	0.004	0.007	1.825	0.000
21	0.000	2.427	0.000	0.689	0.001	1.464	0.000	1.127	0.004	0.006	1.840	0.000
22	0.003	2.428	0.000	0.329	0.000	0.925	0.200	0.154	0.004	0.004	1.907	0.000
23	0.004	2.193	0.000	0.007	0.000	0.222	1.919	0.090	0.004	0.004	1.674	0.000
24	0.002	1.862	0.000	0.004	0.000	0.009	2.741	0.111	0.005	0.005	1.366	0.000
25	0.001	1.587	0.000	0.004	0.000	0.006	0.784	0.056	0.007	0.004	1.107	0.000
26	0.000	1.270	0.000	0.002	0.000	0.008	0.249	0.046	0.010	0.004	0.614	0.000
27	0.000	1.166	0.000	0.002	0.000	0.006	0.069	0.048	0.015	0.003	0.118	0.000
28	0.000	1.313	0.000	0.002	0.000	0.006	0.016	0.058	0.875	0.001	0.007	0.000
29	0.000	0.443	0.000	0.002	NA	0.005	0.007	0.036	2.049	0.000	0.003	0.000
30	0.000	0.007	0.000	0.002	NA	0.004	0.004	0.035	1.562	0.000	0.002	0.000
31	0.000	NA	0.000	0.002	NA	0.006	NA	0.041	NA	0.000	0.002	NA

Flow Rate

Average	0.003	1.038	0.002	0.318	0.001	0.451	0.304	2.780	0.163	0.311	1.085	0.000
Maximum	0.015	3.127	0.005	1.122	0.002	1.464	2.741	14.264	2.049	1.731	2.304	0.004
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.003	0.000	0.000	0.000

Discharge

Cubic Feet	7228	2689782	4634	851026	2391	1208908	787639	7445784	422516	832295	2907323	581
Gallons	54070	20120970	34661	6366120	17885	9043263	5891948	55698335	3160638	6226000	21748291	4349
Acre-Feet	0.17	61.75	0.11	19.54	0.05	27.75	18.08	170.93	9.70	19.11	66.74	0.01

Annual Summaries for WY01

FT ³ /Sec	0.544
GPM	244.2
Cubic Feet	17160108
Gallons	128366529
Acre-Feet	393.94

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.4 GS04: Rock Creek at Highway 128

Table A-4. WY01 Discharge Summary for GS04: Rock Creek at Highway 128.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.010	0.049	0.072	0.043	0.224	0.266	0.313	0.103	0.000	0.000	0.000
2	0.000	0.011	0.036	0.021	0.046	0.214	0.221	0.484	0.090	0.000	0.000	0.000
3	0.000	0.010	0.024	0.015	0.189	0.181	0.195	0.965	0.077	0.000	0.000	0.000
4	0.000	0.027	0.016	0.011	0.222	0.162	0.180	2.921	0.072	0.000	0.000	0.000
5	0.000	0.057	0.030	0.124	0.261	0.166	0.177	18.519	0.158	0.000	0.000	0.000
6	0.000	0.073	0.035	0.187	0.217	0.201	0.174	5.136	0.124	0.000	0.000	0.000
7	0.000	0.065	0.133	0.129	0.187	0.204	0.162	2.394	0.100	0.000	0.000	0.000
8	0.000	0.057	0.129	0.079	0.200	0.223	0.141	1.589	0.072	0.000	0.000	0.000
9	0.000	0.051	0.122	0.097	WR	0.223	0.123	1.127	0.052	0.000	0.000	0.000
10	0.000	0.041	0.115	0.060	WR	0.279	0.116	0.788	0.034	0.000	0.000	0.000
11	0.000	0.037	0.078	0.056	0.095	0.280	0.362	0.617	0.017	0.000	0.000	0.000
12	0.000	0.034	0.058	0.058	0.117	0.329	0.896	0.508	0.009	0.000	0.000	0.000
13	0.000	0.026	0.031	0.054	0.170	0.536	1.525	0.414	0.000	0.000	0.000	0.000
14	0.000	0.018	0.069	0.032	0.228	0.483	1.224	0.343	0.000	0.154	0.000	0.000
15	0.000	0.010	0.134	0.024	0.196	0.297	0.804	0.291	0.000	0.015	0.000	0.000
16	0.000	0.096	0.123	WR	0.169	0.239	0.521	0.222	0.000	0.000	0.000	0.000
17	0.000	0.093	0.084	WR	0.118	0.293	0.403	0.262	0.000	0.000	0.000	0.000
18	0.000	0.099	0.084	WR	0.199	0.293	0.332	0.317	0.000	0.000	0.000	0.000
19	0.000	0.123	0.070	WR	0.278	0.238	0.269	0.328	0.000	0.000	0.000	0.000
20	0.000	0.152	0.046	WR	0.278	0.230	0.223	0.260	0.000	0.000	0.000	0.000
21	0.000	0.152	0.055	WR	0.295	0.232	0.219	0.545	0.000	0.000	0.000	0.000
22	0.000	0.177	0.057	WR	0.279	0.237	0.794	0.374	0.000	0.000	0.000	0.000
23	0.010	0.178	0.037	0.091	0.274	0.215	2.200	0.213	0.000	0.000	0.000	0.000
24	0.048	0.162	0.044	0.096	0.256	0.203	3.774	0.159	0.000	0.000	0.000	0.000
25	0.049	0.164	0.048	0.088	0.210	0.202	1.724	0.134	0.000	0.000	0.000	0.000
26	0.036	0.156	0.036	0.075	0.197	0.350	1.037	0.124	0.000	0.000	0.000	0.000
27	0.020	0.154	0.043	0.075	0.170	0.494	0.683	0.118	0.000	0.000	0.000	0.000
28	0.017	0.089	0.080	0.096	0.188	0.348	0.541	0.127	0.000	0.000	0.000	0.000
29	0.007	0.078	0.098	0.084	NA	0.285	0.497	0.175	0.000	0.000	0.000	0.000
30	0.013	0.065	0.089	0.093	NA	0.347	0.382	0.130	0.000	0.000	0.000	0.000
31	0.016	NA	0.078	0.091	NA	0.293	NA	0.123	NA	0.000	0.000	NA

Partial Data Partial Data

Flow Rate

Average	0.007	0.082	0.069	0.075	0.195	0.274	0.672	1.291	0.030	0.005	0.000	0.000
Maximum	0.049	0.178	0.134	0.187	0.295	0.536	3.774	18.519	0.158	0.154	0.000	0.000
Minimum	0.000	0.010	0.016	0.011	0.043	0.162	0.116	0.118	0.000	0.000	0.000	0.000

Partial Data Partial Data

Discharge

Cubic Feet	18575	212841	184023	156023	438769	734538	1742359	3457487	78403	14660	0	0
Gallons	138952	1592158	1376586	1167135	3282223	5494725	13033749	25863804	586492	109662	0	0
Acre-Feet	0.43	4.89	4.22	3.58	10.07	16.86	40.00	79.37	1.80	0.34	0.00	0.00

Partial Data Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.229
GPM	102.7
Cubic Feet	7037677
Gallons	52645487
Acre-Feet	161.56

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.5 GS05: Woman Creek at West Fenceline

Table A-5. WY01 Discharge Summary for GS05: Woman Creek at West Fenceline.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.059	0.079	0.096	0.190	WR	0.034	0.089	0.096	0.045	BD	0.000	0.000
2	0.051	0.082	0.133	0.189	WR	0.031	0.087	0.249	0.043	BD	0.000	0.000
3	0.029	0.090	0.134	0.467	WR	0.029	0.087	0.880	0.062	BD	0.000	0.000
4	0.026	0.088	0.101	0.376	WR	0.030	0.090	2.682	0.073	BD	0.000	0.000
5	0.042	0.116	0.105	0.144	WR	0.029	0.098	9.513	0.061	BD	0.000	0.000
6	0.037	0.124	0.104	0.078	WR	0.027	0.101	1.225	0.034	BD	0.000	0.000
7	0.031	0.114	0.095	0.064	WR	0.027	0.086	0.460	0.031	BD	0.000	0.000
8	0.026	0.101	0.074	WR	WR	0.026	0.093	0.291	0.033	BD	0.000	0.022
9	0.023	0.096	0.072	WR	WR	0.040	0.092	0.214	0.032	BD	0.089	0.014
10	0.023	0.091	WR	WR	WR	0.061	0.112	0.182	0.031	BD	0.014	0.014
11	0.022	0.089	WR	WR	WR	0.064	0.189	0.170	0.031	BD	0.013	0.013
12	0.022	0.108	WR	WR	WR	0.086	0.584	0.145	0.045	BD	0.012	0.012
13	0.020	0.106	WR	0.044	WR	0.152	0.867	0.114	0.057	BD	0.011	0.013
14	0.019	0.102	WR	0.046	WR	0.080	0.564	0.129	0.046	BD	0.010	0.016
15	0.018	0.113	0.116	0.067	WR	0.057	0.345	0.101	0.040	BD	0.019	0.013
16	0.019	0.136	0.083	0.050	WR	0.057	0.222	0.088	BD	BD	0.013	0.012
17	0.017	0.110	0.196	0.026	WR	0.092	0.200	0.147	BD	BD	0.012	0.011
18	0.017	0.096	WR	0.017	WR	0.082	0.168	0.124	BD	BD	0.011	0.010
19	0.019	0.102	WR	WR	WR	0.065	0.140	0.136	BD	BD	0.010	0.010
20	0.020	0.088	0.069	WR	WR	0.082	0.136	0.106	BD	BD	0.010	0.009
21	0.022	0.107	0.060	WR	WR	0.065	0.168	0.235	BD	BD	0.009	0.008
22	0.060	0.122	0.120	WR	WR	0.068	0.546	0.113	BD	BD	0.008	0.007
23	0.061	0.130	0.189	WR	0.038	0.068	2.426	0.078	BD	BD	0.007	0.006
24	0.056	0.146	0.067	WR	0.038	0.075	0.956	0.046	BD	BD	0.006	0.005
25	0.049	0.146	WR	WR	0.037	0.079	0.342	0.043	BD	BD	0.005	0.004
26	0.044	0.154	WR	WR	0.031	0.155	0.227	0.041	BD	BD	0.004	0.004
27	0.046	0.165	WR	WR	0.049	0.137	0.178	0.039	BD	BD	0.003	0.003
28	0.044	0.134	0.081	WR	0.046	0.090	0.147	0.058	BD	BD	0.002	0.002
29	0.043	0.130	0.074	WR	NA	0.107	0.130	0.059	BD	BD	0.001	0.002
30	0.055	0.099	0.092	WR	NA	0.115	0.100	0.043	BD	BD	0.000	0.001
31	0.098	NA	0.114	WR	NA	0.109	NA	0.043	NA	BD	0.000	NA

Partial Data Partial Data Partial Data

Partial Data No Data

Flow Rate

Average	0.036	0.112	0.104	0.135	0.039	0.071	0.319	0.576	0.044	#DIV/0!	0.009	0.007
Maximum	0.098	0.165	0.196	0.467	0.049	0.155	2.426	9.513	0.073	0.000	0.089	0.022
Minimum	0.017	0.079	0.060	0.017	0.031	0.026	0.086	0.039	0.031	0.000	0.000	0.000

Partial Data Partial Data Partial Data

Partial Data No Data

Discharge

Cubic Feet	96855	290644	187857	151962	20447	189983	826801	1542053	57409	0	23144	18278
Gallons	724523	2174171	1405265	1136753	152953	1421174	6184900	11535357	429447	0	173132	136729
Acre-Feet	2.22	6.67	4.31	3.49	0.47	4.36	18.98	35.40	1.32	0.00	0.53	0.42

Partial Data Partial Data Partial Data

Partial Data No Data

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
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 and electronic record at adjacent or comparable gages

Ft ³ /Sec	0.147
GPM	65.8
Cubic Feet	3405432
Gallons	25474405
Acre-Feet	78.18

Partial Data

A.1.6 GS06: Owl Branch at West Fenceline

Table A-6. WY01 Discharge Summary for GS06: Owl Branch at West Fenceline.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.007	0.008	0.007	WR	WR	0.007	0.010	0.019	0.010	0.000	0.000	0.000
2	0.008	0.008	0.006	WR	WR	0.008	0.010	0.028	0.010	0.000	0.000	0.000
3	0.008	0.008	0.007	WR	WR	0.008	0.010	0.057	0.010	0.000	0.000	0.000
4	0.008	0.008	0.010	WR	WR	0.007	0.009	0.212	0.011	0.000	0.000	0.000
5	0.010	0.008	0.008	WR	WR	0.008	0.010	1.692	0.010	0.000	0.000	0.000
6	0.009	0.008	0.008	WR	WR	0.008	0.009	0.250	0.009	0.000	0.000	0.000
7	0.009	0.008	0.008	WR	WR	0.008	0.009	0.107	0.011	0.000	0.000	0.000
8	0.008	0.008	0.007	WR	WR	0.009	0.009	0.064	0.012	0.000	0.000	0.005
9	0.008	0.008	0.007	WR	WR	0.009	0.009	0.049	0.011	0.000	0.026	0.000
10	0.008	0.008	WR	WR	WR	0.010	0.014	0.041	0.010	0.000	0.011	0.000
11	0.008	0.005	WR	WR	WR	0.011	0.017	0.037	0.009	0.000	0.005	0.000
12	0.008	WR	WR	WR	WR	0.011	0.029	0.032	0.010	0.007	0.003	0.000
13	0.008	WR	WR	WR	WR	0.014	0.038	0.028	0.011	0.010	0.003	0.000
14	0.008	WR	WR	WR	WR	0.011	0.038	0.026	0.011	0.097	0.007	0.000
15	0.008	WR	WR	WR	WR	0.010	0.024	0.022	0.009	0.049	0.013	0.000
16	0.008	WR	WR	WR	WR	0.010	0.026	0.021	0.009	0.011	0.009	0.000
17	0.008	WR	WR	WR	WR	0.011	0.026	0.024	0.007	0.008	0.005	0.000
18	0.008	WR	WR	WR	WR	0.011	0.024	0.022	0.004	0.007	0.003	0.000
19	0.008	WR	WR	WR	WR	0.010	0.022	0.026	0.002	0.006	0.000	0.000
20	0.008	WR	WR	WR	WR	0.010	0.020	0.024	0.006	0.006	0.000	0.000
21	0.008	WR	WR	WR	WR	0.010	0.022	0.034	0.004	0.006	0.000	0.000
22	0.010	WR	WR	WR	WR	0.010	0.039	0.023	0.004	0.004	0.000	0.000
23	0.009	WR	WR	WR	0.007	0.009	0.254	0.020	0.000	0.004	0.000	0.000
24	0.009	WR	WR	WR	0.007	0.009	0.127	0.018	0.000	0.005	0.000	0.000
25	0.008	WR	WR	WR	0.006	0.009	0.058	0.018	0.000	0.003	0.000	0.000
26	0.008	WR	WR	WR	0.007	0.014	0.041	0.018	0.000	0.004	0.000	0.000
27	0.008	WR	WR	WR	0.007	0.013	0.034	0.017	0.000	0.002	0.000	0.000
28	0.008	0.004	WR	WR	0.008	0.010	0.030	0.021	0.000	0.001	0.000	0.000
29	0.008	WR	WR	WR	NA	0.011	0.025	0.017	0.000	0.000	0.000	0.000
30	0.008	0.005	WR	WR	NA	0.011	0.021	0.012	0.000	0.000	0.000	0.000
31	0.008	NA	WR	WR	NA	0.011	NA	0.011	NA	0.000	0.000	NA

Partial Data Partial Data No Data Partial Data

Flow Rate

Average	0.008	0.007	0.008		0.007	0.010	0.034	0.096	0.006	0.007	0.003	0.000
Maximum	0.010	0.008	0.010		0.008	0.014	0.254	1.692	0.012	0.097	0.026	0.005
Minimum	0.007	0.004	0.006		0.006	0.007	0.009	0.011	0.000	0.000	0.000	0.000

Partial Data Partial Data No Data Partial Data

Discharge

Cubic Feet	22238	8190	5878		3613	26424	87761	258360	16405	19798	7418	470
Gallons	166349	61266	43969		27026	197665	656498	1932670	122721	148101	55493	3518
Acre-Feet	0.51	0.19	0.13		0.08	0.61	2.01	5.93	0.38	0.45	0.17	0.01

Partial Data Partial Data No Data Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.019
GPM	8.7
Cubic Feet	456556
Gallons	3415277
Acre-Feet	10.48

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.7 GS08: South Walnut Creek at Pond B-5 Outlet

Table A-7. WY01 Discharge Summary for GS08: South Walnut Creek at Pond B-5 Outlet.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.091	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.957	1.255	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.822	0.000	2.018	1.662	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.004	0.000	2.234	1.371	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.462	0.000	1.187	1.260	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.539	0.000	0.891	1.404	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.448	0.000	0.659	1.563	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.161	0.000	0.587	1.584	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.021	0.000	0.187	0.828	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.070	0.000	0.000	1.298	0.000
11	0.000	0.000	0.000	0.697	0.000	0.000	0.000	1.961	0.000	0.000	1.900	0.000
12	0.000	0.000	0.000	1.193	0.000	1.140	0.000	1.912	0.000	0.000	1.620	0.000
13	0.000	1.247	0.000	1.233	0.000	1.889	0.000	1.702	0.000	0.000	1.679	0.000
14	0.000	1.752	0.000	1.224	0.000	1.871	0.000	1.847	0.000	0.000	1.623	0.000
15	0.000	1.555	0.000	1.339	0.000	1.982	0.000	1.659	0.000	0.000	1.748	0.000
16	0.000	1.526	0.000	1.343	0.000	1.871	0.000	1.557	0.000	0.000	0.443	0.000
17	0.000	1.293	0.000	1.529	0.000	1.690	0.000	1.531	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	1.524	0.000	1.561	0.000	1.464	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	1.296	0.000	1.711	0.000	1.273	0.000	0.000	0.000	0.000
20	0.000	0.799	0.000	1.024	0.000	1.963	0.000	1.186	0.000	0.000	0.000	0.000
21	0.000	1.484	0.000	0.871	0.000	1.907	0.000	0.812	0.000	0.000	0.000	0.000
22	0.000	1.506	0.000	0.277	0.000	1.162	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	1.404	0.000	0.000	0.000	0.156	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	1.266	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	1.208	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	1.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	1.344	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	1.688	0.000	0.000	0.000	0.000	0.000	0.000	1.816	0.000	0.000	0.000
29	0.000	0.355	0.000	0.000	NA	0.000	0.000	0.000	2.742	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	2.220	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.652	0.000	0.437	0.000	0.609	0.000	1.369	0.226	0.381	0.685	0.000
Maximum	0.000	1.752	0.000	1.529	0.000	1.963	0.000	6.462	2.742	2.234	1.900	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	1689712	0	1170810	0	1631380	0	3666143	585543	1020526	1834957	0
Gallons	0	12639928	0	8758271	0	12203569	0	27424656	4380184	7634066	13726431	0
Acre-Feet	0.00	38.79	0.00	26.88	0.00	37.45	0.00	84.16	13.44	23.43	42.12	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.368
GPM	165.1
Cubic Feet	11599071
Gallons	86767086
Acre-Feet	266.28

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.8 GS10: South Walnut Creek at B-1 Bypass

Table A-8. WY01 Discharge Summary for GS10: South Walnut Creek at B-1 Bypass.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.071	0.048	0.046	0.051	0.043	0.035	0.055	0.075	0.092	0.031	0.097	0.036
2	0.072	0.047	0.046	0.049	0.047	0.036	0.055	0.568	0.095	0.030	0.084	0.034
3	0.105	0.064	0.048	0.053	0.050	0.034	0.053	1.268	0.100	0.031	0.075	0.035
4	0.075	0.049	0.047	0.060	0.043	0.034	0.052	2.100	0.144	0.032	0.075	0.035
5	0.321	0.094	0.047	0.057	0.048	0.037	0.052	4.373	0.168	0.044	0.074	0.037
6	0.211	0.054	0.075	0.059	0.044	0.039	0.051	0.305	0.102	0.101	0.078	0.041
7	0.119	0.051	0.057	0.056	0.042	0.037	0.049	0.180	0.130	0.035	0.069	0.079
8	0.080	0.051	0.047	0.056	0.039	0.037	0.047	0.135	0.104	0.112	0.068	1.753
9	0.077	0.051	0.050	0.055	0.034	0.036	0.044	0.119	0.105	0.039	2.695	0.040
10	0.072	0.050	0.048	0.059	0.034	0.305	0.087	0.108	0.105	0.648	0.095	0.034
11	0.066	0.068	0.054	0.057	0.101	0.382	1.406	0.098	0.105	0.222	0.065	0.032
12	0.073	0.056	0.052	0.056	0.042	0.140	1.441	0.093	0.101	0.060	0.063	0.032
13	0.105	0.050	0.034	0.056	0.030	0.160	0.521	0.089	0.633	0.935	0.074	0.242
14	0.052	0.050	0.046	0.055	0.052	0.056	0.227	0.110	0.075	3.896	0.090	0.151
15	0.049	0.052	0.051	0.055	0.080	0.044	0.135	0.087	0.066	0.110	0.704	0.043
16	0.045	0.047	0.049	0.072	0.038	0.042	0.085	0.085	0.063	0.052	0.061	0.039
17	0.044	0.045	0.051	0.058	0.038	0.139	0.082	0.152	0.061	0.047	0.054	0.051
18	0.043	0.067	0.049	0.042	0.038	0.051	0.083	0.092	0.058	0.049	0.051	0.042
19	0.043	0.054	0.050	0.035	0.049	0.045	0.074	0.565	0.056	0.050	0.049	0.054
20	0.042	0.049	0.058	0.038	0.043	0.047	0.069	0.585	0.053	0.054	0.059	0.051
21	0.045	0.049	0.049	0.036	0.042	0.050	0.419	0.583	0.051	0.057	0.042	0.047
22	0.481	0.050	0.055	0.034	0.042	0.048	2.158	0.112	0.050	0.061	0.044	0.043
23	0.086	0.051	0.049	0.038	0.040	0.043	1.143	0.092	0.049	0.066	0.045	0.044
24	0.056	0.050	0.049	0.037	0.038	0.045	0.221	0.086	0.046	0.072	0.038	0.044
25	0.051	0.049	0.051	0.039	0.038	0.049	0.140	0.088	0.045	0.075	0.036	0.045
26	0.049	0.048	0.057	0.040	0.036	0.304	0.108	0.088	0.054	0.088	0.036	0.077
27	0.048	0.049	0.050	0.041	0.038	0.140	0.092	0.092	0.032	0.076	0.035	0.050
28	0.047	0.049	0.048	0.043	0.041	0.057	0.091	0.359	0.032	0.071	0.035	0.050
29	0.049	0.049	0.049	0.056	NA	0.161	0.081	0.117	0.030	0.072	0.033	0.053
30	0.049	0.048	0.049	0.047	NA	0.077	0.073	0.094	0.028	0.076	0.034	0.058
31	0.066	NA	0.050	0.043	NA	0.111	NA	0.092	NA	0.080	0.036	NA

Flow Rate

Average	0.090	0.053	0.050	0.050	0.045	0.091	0.306	0.419	0.094	0.238	0.164	0.112
Maximum	0.481	0.094	0.075	0.072	0.101	0.382	2.158	4.373	0.633	3.896	2.695	1.753
Minimum	0.042	0.045	0.034	0.034	0.030	0.034	0.044	0.075	0.028	0.030	0.033	0.032

Discharge

Cubic Feet	241393	137049	134899	132697	108074	243605	794415	1122333	244795	636952	440171	291242
Gallons	1805748	1025197	1009112	992644	808448	1822295	5942640	8395637	1831192	4764730	3292705	2178640
Acre-Feet	5.54	3.15	3.10	3.05	2.48	5.59	18.24	25.77	5.62	14.62	10.10	6.69

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

Ft ³ /Sec	0.144
GPM	64.4
Cubic Feet	4527625
Gallons	33868989
Acre-Feet	103.94

A.1.9 GS11: North Walnut Creek at Pond A-4 Outlet

Table A-9. WY01 Discharge Summary for GS11: North Walnut Creek at Pond A-4 Outlet.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.537	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.498	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.585	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.578	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.943	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.438	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.272	0.000	0.000	0.000	0.000
13	0.000	1.264	0.000	0.000	0.000	0.000	0.000	2.179	0.000	0.000	0.000	0.000
14	0.000	1.946	0.000	0.000	0.000	0.000	0.000	2.244	0.000	0.000	0.000	0.000
15	0.000	1.688	0.000	0.000	0.000	0.000	0.000	2.322	0.000	0.000	0.000	0.000
16	0.000	1.504	0.000	0.000	0.000	0.000	0.000	2.010	0.000	0.000	1.687	0.000
17	0.000	1.483	0.000	0.000	0.000	0.000	0.000	1.841	0.000	0.000	2.508	0.000
18	0.000	1.397	0.000	0.000	0.000	0.000	0.000	1.333	0.000	0.000	2.314	0.000
19	0.000	1.246	0.000	0.000	0.000	0.000	0.000	0.904	0.000	0.000	2.147	0.000
20	0.000	1.151	0.000	0.000	0.000	0.000	0.000	0.562	0.000	0.000	2.074	0.000
21	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.143	0.000	0.000	2.102	0.000
22	0.000	1.247	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.143	0.000
23	0.000	1.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.886	0.000
24	0.000	0.857	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.562	0.000
25	0.000	0.643	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.229	0.000
26	0.000	0.389	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.629	0.000
27	0.000	0.115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.576	0.000	0.000	0.000	0.000	0.000	1.142	0.000	0.000	0.657	0.000
Maximum	0.000	1.946	0.000	0.000	0.000	0.000	0.000	4.498	0.000	0.000	2.508	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	1492682	0	0	0	0	0	3057487	0	0	1758782	0
Gallons	0	11166039	0	0	0	0	0	22871591	0	0	13156601	0
Acre-Feet	0.00	34.27	0.00	0.00	0.00	0.00	0.00	70.19	0.00	0.00	40.38	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.200
GPM	89.8
Cubic Feet	6308950
Gallons	47194230
Acre-Feet	144.83

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.10 GS12: North Walnut Creek at Pond A-3 Outlet

Table A-10. WY01 Discharge Summary for GS12: North Walnut Creek at Pond A-3 Outlet.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	1.202	0.000	0.000	0.000	0.000	0.000	1.342	0.000	0.000	0.000	0.000	0.000
3	1.960	0.000	0.000	0.000	0.000	0.000	1.961	0.000	0.000	0.000	0.000	0.000
4	1.880	0.000	0.000	0.000	0.000	0.000	1.825	1.997	0.000	0.000	0.000	0.000
5	0.830	0.000	0.000	0.000	0.000	0.000	1.092	6.100	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.875	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.145	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.219	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.549	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.670	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.603	1.358	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.492	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	1.369	0.000	0.000	1.059	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	2.216	0.000	0.000	0.896	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	1.920	0.000	0.000	0.936	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	1.016	0.000	0.000	1.299	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.731	0.000	1.381	0.000	0.000
22	0.000	0.000	0.000	0.000	0.846	0.000	0.000	2.280	0.000	1.470	0.000	0.000
23	0.000	0.000	0.000	0.000	1.357	0.000	0.000	2.135	0.000	0.519	0.000	0.000
24	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.817	0.000	0.064	0.000	0.000
25	0.000	0.000	0.000	0.000	1.318	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.769	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.189	0.000	0.000	0.000	0.201	0.000	0.425	0.712	0.268	0.370	0.000	0.000
Maximum	1.960	0.000	0.000	0.000	1.357	0.000	2.216	6.100	2.670	2.492	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	507346	0	0	0	486893	0	1100770	1907703	694740	991189	0	0
Gallons	3795211	0	0	0	3642211	0	8234329	14270611	5197017	7414611	0	0
Acre-Feet	11.65	0.00	0.00	0.00	11.18	0.00	25.27	43.79	15.95	22.75	0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.180
GPM	81.0
Cubic Feet	5688641
Gallons	42553989
Acre-Feet	130.59

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.11 GS16: Antelope Springs

Table A-11. WY01 Discharge Summary for GS16: Antelope Springs.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.075	0.099	WR	WR	WR	0.125	0.118	0.094	0.088	0.039	0.049	0.050
2	0.077	0.097	WR	WR	WR	0.126	0.116	0.231	0.081	0.038	0.051	0.044
3	0.108	0.118	WR	WR	WR	0.119	0.114	0.317	0.098	0.038	0.044	0.045
4	0.102	0.108	WR	WR	WR	0.109	0.118	0.709	0.141	0.042	0.044	0.046
5	0.181	0.129	WR	WR	WR	0.116	0.120	1.975	0.120	0.043	0.042	0.048
6	0.181	0.114	WR	WR	WR	0.121	0.117	0.304	0.079	0.048	0.043	0.048
7	0.151	0.113	WR	WR	WR	0.117	0.103	0.192	0.087	0.045	0.042	0.059
8	0.117	0.105	0.103	WR	WR	0.112	0.109	0.152	0.083	0.055	0.042	0.202
9	0.109	0.107	0.111	WR	WR	0.109	0.107	0.133	0.067	0.050	0.129	0.070
10	0.105	0.101	WR	WR	WR	0.126	0.142	0.130	0.059	0.074	0.065	0.058
11	0.098	WR	WR	WR	WR	0.122	0.192	0.125	0.052	0.069	0.058	0.054
12	0.094	WR	WR	WR	WR	0.141	0.350	0.115	0.057	0.063	0.049	0.053
13	0.096	WR	WR	WR	WR	0.283	0.496	0.103	0.124	0.096	0.054	0.076
14	0.094	WR	WR	WR	WR	0.164	0.357	0.116	0.078	0.181	0.066	0.078
15	0.097	WR	WR	WR	WR	0.120	0.197	0.102	0.059	0.078	0.144	0.073
16	0.097	WR	WR	WR	WR	0.117	0.161	0.095	0.053	0.053	0.071	0.070
17	0.095	WR	WR	WR	WR	0.161	0.147	0.165	0.053	0.049	0.060	0.078
18	0.096	WR	WR	WR	WR	0.129	0.133	0.140	0.048	0.048	0.051	0.069
19	0.096	WR	WR	WR	WR	0.115	0.108	0.209	0.052	0.047	0.048	0.061
20	0.096	WR	WR	WR	WR	0.110	0.117	0.131	0.054	0.047	0.052	0.058
21	0.100	WR	WR	WR	WR	0.110	0.189	0.339	0.055	0.046	0.052	0.053
22	0.215	WR	WR	WR	WR	0.114	0.276	0.136	0.049	0.045	0.053	0.047
23	0.150	WR	WR	WR	0.149	0.108	0.733	0.104	0.044	0.051	0.055	0.049
24	0.124	WR	WR	WR	0.135	0.118	0.359	0.092	0.042	0.051	0.047	0.052
25	0.108	WR	WR	WR	0.140	0.120	0.187	0.094	0.043	0.048	0.049	0.050
26	0.104	WR	WR	WR	0.115	0.205	0.146	0.095	0.044	0.053	0.048	0.048
27	0.105	WR	WR	WR	WR	0.194	0.133	0.101	0.044	0.049	0.043	0.046
28	0.111	0.100	WR	WR	WR	0.132	0.135	0.195	0.040	0.044	0.043	0.051
29	0.102	WR	WR	WR	NA	0.162	0.121	0.147	0.038	0.044	0.045	0.053
30	0.100	WR	WR	WR	NA	0.139	0.100	0.113	0.038	0.041	0.048	0.055
31	0.117	NA	WR	WR	NA	0.145	NA	0.102	NA	0.044	0.052	NA

Partial Data Partial Data No Data Partial Data

Flow Rate

Average	0.113	0.108	0.107		0.135	0.135	0.193	0.228	0.066	0.055	0.056	0.062
Maximum	0.215	0.129	0.111		0.149	0.283	0.733	1.975	0.141	0.181	0.144	0.202
Minimum	0.075	0.097	0.103		0.115	0.108	0.100	0.092	0.038	0.038	0.042	0.044

Partial Data Partial Data No Data Partial Data

Discharge

Cubic Feet	302630	102977	18459		46590	361912	501331	609590	170115	148384	150217	159603
Gallons	2263832	770318	138081		348515	2707291	3750215	4560047	1272550	1109987	1123705	1193915
Acre-Feet	6.95	2.36	0.42		1.07	8.31	11.51	13.99	3.91	3.41	3.45	3.66

Partial Data Partial Data No Data Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.114
GPM	51.0
Cubic Feet	2571807
Gallons	19238455
Acre-Feet	59.04

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.12 GS22: 400 Area Outfall to SID

Table A-12. WY01 Discharge Summary for GS22: 400 Area Outfall.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.011	0.019	0.002	0.008	0.010	0.011	0.018	0.022	0.024	0.013	0.039	0.007
2	0.011	0.011	0.002	0.009	0.011	0.013	0.018	0.220	0.024	0.012	0.019	0.005
3	0.051	0.029	0.003	0.009	0.012	0.010	0.017	0.260	0.023	0.012	0.010	0.005
4	0.013	0.008	0.003	0.009	0.010	0.009	0.017	0.422	0.060	0.011	0.008	0.004
5	0.154	0.040	0.006	0.009	0.013	0.009	0.018	0.771	0.021	0.026	0.007	0.006
6	0.076	0.010	0.052	0.009	0.010	0.009	0.019	0.046	0.022	0.072	0.010	0.013
7	0.029	0.008	0.017	0.008	0.011	0.009	0.017	0.037	0.049	0.016	0.012	0.061
8	0.015	0.007	0.011	0.008	0.012	0.011	0.017	0.034	0.021	0.087	0.011	0.486
9	0.014	0.007	0.011	0.008	0.011	0.011	0.015	0.033	0.020	0.014	0.504	0.016
10	0.014	0.007	0.011	0.009	0.022	0.142	0.051	0.032	0.019	0.158	0.055	0.012
11	0.012	0.015	0.017	0.009	0.065	0.127	0.262	0.030	0.018	0.084	0.014	0.010
12	0.010	0.014	0.013	0.010	0.014	0.057	0.224	0.029	0.019	0.024	0.008	0.009
13	0.010	0.027	0.014	0.009	0.011	0.116	0.155	0.030	0.178	0.174	0.022	0.119
14	0.009	0.008	0.027	0.008	0.033	0.017	0.066	0.047	0.020	0.316	0.045	0.049
15	0.009	0.009	0.012	0.007	0.047	0.016	0.040	0.028	0.018	0.024	0.164	0.017
16	0.008	0.009	0.012	0.024	0.013	0.016	0.027	0.027	0.018	0.017	0.021	0.015
17	0.007	0.009	0.011	0.032	0.015	0.088	0.039	0.094	0.018	0.015	0.015	0.026
18	0.006	0.033	0.010	0.017	0.013	0.019	0.033	0.029	0.017	0.016	0.013	0.015
19	0.006	0.019	0.010	0.019	0.015	0.016	0.024	0.130	0.016	0.017	0.011	0.014
20	0.006	0.009	0.020	0.030	0.016	0.015	0.025	0.160	0.016	0.015	0.024	0.028
21	0.006	0.008	0.020	0.015	0.016	0.019	0.170	0.148	0.015	0.013	0.012	0.014
22	0.213	0.007	0.014	0.009	0.014	0.016	0.360	0.029	0.016	0.012	0.016	0.011
23	0.013	0.007	0.011	0.009	0.013	0.017	0.318	0.028	0.015	0.017	0.013	0.013
24	0.010	0.006	0.011	0.009	0.012	0.022	0.046	0.028	0.014	0.021	0.011	0.012
25	0.009	0.006	0.011	0.010	0.011	0.031	0.029	0.028	0.015	0.017	0.009	0.010
26	0.008	0.006	0.023	0.009	0.011	0.112	0.027	0.027	0.019	0.034	0.010	0.019
27	0.008	0.005	0.010	0.009	0.019	0.084	0.026	0.030	0.016	0.017	0.008	0.010
28	0.008	0.004	0.011	0.009	0.019	0.020	0.034	0.129	0.015	0.012	0.008	0.010
29	0.025	0.003	0.011	0.024	NA	0.087	0.024	0.030	0.014	0.009	0.007	0.010
30	0.008	0.003	0.010	0.029	NA	0.030	0.022	0.026	0.014	0.009	0.009	0.011
31	0.019	NA	0.009	0.010	NA	0.049	NA	0.025	NA	0.010	0.009	NA

Flow Rate

Average	0.026	0.012	0.013	0.013	0.017	0.039	0.072	0.097	0.026	0.042	0.036	0.035
Maximum	0.213	0.040	0.052	0.032	0.065	0.142	0.360	0.771	0.178	0.316	0.504	0.486
Minimum	0.006	0.003	0.002	0.007	0.010	0.009	0.015	0.022	0.014	0.009	0.007	0.004

Discharge

Cubic Feet	69073	30382	35173	34110	41411	104334	186468	259855	66938	111855	96821	89475
Gallons	516699	227272	263115	255162	309776	780472	1394878	1943849	500729	836736	724272	669321
Acre-Feet	1.59	0.70	0.81	0.78	0.95	2.40	4.28	5.97	1.54	2.57	2.22	2.05

Annual Summaries for WY01

Fr/Sec	0.036
GPM	16.0
Cubic Feet	1125895
Gallons	8422280
Acre-Feet	25.85

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.13 GS27: Building 889/884 Sub-Drainage Area

Table A-13. WY01 Discharge Summary for GS27: Building 889/884 Sub-Drainage Area.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0062	0.0000	0.0000	0.0000	0.0000
5	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0083	0.0000	0.0000	0.0000	0.0000
6	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0036
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0077	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0020	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009	0.0065	0.0000	0.0000	0.0001	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0057	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0004	0.0000	0.0008	0.0021	0.0000	0.0001
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0070	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0010	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0010	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0017	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0010	0.0000	0.0000	0.0000	0.0000
22	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0049	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0038	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000
Maximum	0.001	0.000	0.000	0.000	0.000	0.001	0.006	0.008	0.001	0.007	0.008	0.004
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	168	0	0	0	0	275	1866	1942	67	963	756	323
Gallons	1256	0	0	0	0	2060	13960	14528	498	7206	5652	2416
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.04	0.00	0.02	0.02	0.01

Annual Summaries for WY01

Ft ³ /Sec	0.0002
GPM	0.09
Cubic Feet	6360
Gallons	47576
Acre-Feet	0.146

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.14 GS31: Woman Creek at Pond C-2 Outlet

Table A-14. WY01 Discharge Summary for GS31: Woman Creek at Pond C-2 Outlet.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.853	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.662	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.653	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.491	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.598	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.556	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.571	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.699	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.814	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.018	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.150	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.495	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.699	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	1284277	0	0	0
Gallons	0	0	0	0	0	0	0	0	9607063	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.48	0.00	0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.041
GPM	18.3
Cubic Feet	1284277
Gallons	9607063
Acre-Feet	29.48

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.15 GS33: No Name Gulch at Walnut Creek

Table A-15. WY01 Discharge Summary for GS33: No Name Gulch at Walnut Creek.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.194	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.562	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.724	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.390	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.119	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.022	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.113	0.002	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.120	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.000	0.000	0.004	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.142	0.028	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.592	0.002	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.188	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.058	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.135	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.592	2.724	0.000	0.004	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	1	3	0	0	0	0	116085	361521	8	371	1	5
Gallons	9	19	0	0	0	0	868373	2704364	59	2772	8	39
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	2.66	8.30	0.00	0.01	0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.015
GPM	6.8
Cubic Feet	477994
Gallons	3575642
Acre-Feet	10.97

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.16 GS34: Walnut Creek Above Confluence with McKay Ditch

Table A-16. WY01 Discharge Summary for GS34: Walnut Creek Above Confluence with McKay Ditch.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.007	0.000	0.019	0.000	0.000	0.000	0.000	0.003	0.000	2.253	No Data	No Data
2	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.023	0.000	2.067	No Data	No Data
3	0.000	0.000	0.016	0.000	0.000	0.000	0.000	1.793	0.000	2.036	No Data	No Data
4	0.000	0.000	0.005	0.000	0.000	0.000	0.000	3.422	0.004	2.290	No Data	No Data
5	0.000	0.000	0.003	0.000	0.000	0.000	0.000	9.217	0.000	1.151	No Data	No Data
6	0.000	0.000	0.002	0.014	0.000	0.000	0.000	8.550	0.000	0.874	No Data	No Data
7	0.000	0.000	0.009	0.000	0.000	0.000	0.000	7.020	0.000	0.632	No Data	No Data
8	0.000	0.000	0.002	0.014	0.000	0.000	0.000	5.871	0.000	0.522	No Data	No Data
9	0.000	0.000	0.003	0.000	0.000	0.000	0.000	5.882	0.000	0.171	No Data	No Data
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.490	0.000	0.004	No Data	No Data
11	0.000	0.000	0.000	0.511	0.000	0.000	0.001	4.684	0.000	0.003	No Data	No Data
12	0.000	0.000	0.000	1.215	0.000	0.908	0.041	4.487	0.000	0.000	No Data	No Data
13	0.000	2.050	0.000	1.321	0.000	1.739	0.212	4.073	0.000	0.003	No Data	No Data
14	0.000	3.539	0.000	1.259	0.000	1.800	0.219	4.361	0.000	0.016	No Data	No Data
15	0.000	3.253	0.001	1.325	0.000	1.762	0.069	4.181	0.000	0.000	No Data	No Data
16	0.000	3.016	0.001	1.344	0.000	1.745	0.026	3.869	0.000	0.000	No Data	No Data
17	0.000	2.851	0.001	1.516	0.000	1.660	0.015	3.624	0.000	0.000	No Data	No Data
18	0.000	1.618	0.000	1.518	0.000	1.539	0.016	3.048	0.000	0.000	No Data	No Data
19	0.000	1.530	0.000	1.311	0.000	1.671	0.010	2.435	0.000	0.000	No Data	No Data
20	0.000	2.009	0.000	1.079	0.000	1.931	0.005	1.979	0.000	0.000	No Data	No Data
21	0.000	2.877	0.000	0.875	0.000	1.889	0.012	1.124	0.000	0.000	No Data	No Data
22	0.000	2.902	0.000	0.317	0.000	1.098	0.164	0.046	0.000	0.000	No Data	No Data
23	0.000	2.651	0.000	0.013	0.000	0.184	0.688	0.118	0.000	0.000	No Data	No Data
24	0.000	2.310	0.000	0.000	0.000	0.000	0.278	0.061	0.000	0.000	No Data	No Data
25	0.000	2.012	0.000	0.000	0.000	0.000	0.095	0.011	0.000	0.000	No Data	No Data
26	0.000	1.714	0.000	0.000	0.000	0.000	0.040	0.018	0.000	0.000	No Data	No Data
27	0.000	1.566	0.000	0.000	0.000	0.000	0.041	0.003	0.000	0.000	No Data	No Data
28	0.000	1.710	0.000	0.000	0.000	0.000	0.020	0.021	1.347	0.000	No Data	No Data
29	0.000	0.429	0.000	0.000	NA	0.000	0.014	0.001	2.626	0.000	No Data	No Data
30	0.000	0.051	0.000	0.000	NA	0.000	0.004	0.003	2.328	No Data	No Data	No Data
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	No Data	No Data	NA

Partial Data No Data No Data

Flow Rate

Average	0.000	1.270	0.002	0.440	0.000	0.578	0.066	2.756	0.210	0.415		
Maximum	0.007	3.539	0.019	1.518	0.000	1.931	0.688	9.217	2.626	2.290		
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Partial Data No Data No Data

Discharge

Cubic Feet	610	3290989	6617	1177755	0	1548723	170205	7380361	544742	1038577		
Gallons	4563	24618308	49497	8810222	0	11585253	1273223	55208935	4074956	7769098		
Acre-Feet	0.01	75.55	0.15	27.04	0.00	35.55	3.91	169.43	12.51	23.84		

Partial Data No Data No Data

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

Ft ³ /Sec	0.581
GPM	260.7
Cubic Feet	15158579
Gallons	113394053
Acre-Feet	347.99

Partial Data

A.1.17 GS35: McKay Ditch at Walnut Creek

Table A-17. WY01 Discharge Summary for GS35: McKay Ditch at Walnut Creek.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.060	0.035	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.061	0.049	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.418	0.073	0.060	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.082	0.085	0.055	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.461	0.073	0.053	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.174	0.060	0.005	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.620	0.001	0.043	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.243	0.000	0.060	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.109	0.000	0.057	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.000	0.057	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.007	0.042	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.213	0.000	0.105	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.454	0.000	0.029	0.007	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	1.014	0.000	0.000	0.025	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.782	0.000	0.022	0.012	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.284	0.000	0.074	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.000	0.075	0.000	0.000	0.000
18	0.000	0.000	0.000	0.026	0.000	0.000	0.012	0.000	0.056	0.000	0.000	0.000
19	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.060	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.067	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.151	0.069	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.274	0.092	0.065	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	1.643	0.000	0.060	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	2.552	0.079	0.052	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.766	0.089	0.049	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.219	0.081	0.047	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.080	0.043	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.083	0.032	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.026	0.032	0.000	0.000	0.000
30	0.000	0.000	0.000	0.010	NA	0.000	0.000	0.076	0.031	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.069	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.002	0.000	0.000	0.278	0.387	0.046	0.018	0.000	0.000
Maximum	0.000	0.000	0.000	0.036	0.000	0.000	2.552	5.461	0.105	0.060	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	6229	0	0	720054	1037878	120236	48474	0	0
Gallons	0	0	0	46596	0	0	5386376	7763866	899425	362608	0	0
Acre-Feet	0.00	0.00	0.00	0.14	0.00	0.00	16.53	23.83	2.76	1.11	0.00	0.00

Annual Summaries for WY01

FT ³ /Sec	0.061
GPM	27.5
Cubic Feet	1932870
Gallons	14458872
Acre-Feet	44.37

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.18 GS38: Central Avenue Ditch at Eighth Street

Table A-18. WY01 Discharge Summary for GS38: Central Avenue Ditch at Eighth Street.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
2	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.185	0.000	0.000	0.000	0.000
3	0.005	0.001	0.000	0.000	0.006	0.000	0.000	0.374	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.584	0.005	0.000	0.000	0.000
5	0.088	0.012	0.000	0.000	0.003	0.000	0.000	1.027	0.017	0.000	0.000	0.000
6	0.040	0.000	0.004	0.000	WR	0.000	0.000	0.027	0.000	0.022	0.000	0.000
7	0.008	0.000	0.000	0.000	WR	0.000	0.000	0.014	0.005	0.000	0.000	0.008
8	0.000	0.000	0.000	0.000	WR	0.000	0.000	0.005	0.000	0.020	0.000	0.489
9	0.000	0.000	0.000	0.000	WR	0.000	0.000	0.002	0.000	0.000	0.722	0.000
10	0.000	0.000	0.000	0.000	WR	0.109	0.015	0.000	0.000	0.151	0.013	0.000
11	0.000	0.001	0.000	0.000	WR	0.115	0.420	0.000	0.000	0.037	0.002	0.000
12	0.000	0.050	0.000	0.000	WR	0.034	0.382	0.000	0.000	0.001	0.000	0.000
13	0.000	0.007	0.000	0.000	WR	0.034	0.093	0.000	0.145	0.196	0.000	0.056
14	0.000	0.000	0.001	0.000	WR	0.000	0.029	0.003	0.000	0.549	0.006	0.028
15	0.000	0.000	0.001	0.000	0.025	0.000	0.009	0.000	0.000	0.012	0.189	0.000
16	0.000	0.000	0.000	0.006	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.001	0.004	0.006	0.035	0.001	0.019	0.000	0.000	0.000	0.000
18	0.000	0.014	0.000	0.000	0.001	0.019	0.000	0.001	0.000	0.000	0.000	0.000
19	0.000	0.032	0.000	0.000	0.001	0.000	0.000	0.119	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.186	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.120	0.098	0.000	0.000	0.000	0.000
22	0.139	0.000	0.005	0.000	0.000	0.000	0.667	0.006	0.000	0.000	0.000	0.000
23	0.002	0.000	0.001	0.000	0.000	0.000	0.267	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.003	0.000	0.000	0.000	0.024	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.003	0.009	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.037	0.000	0.000	0.111	0.003	0.000	0.000	0.001	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.060	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.011	NA	0.042	0.000	0.001	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.003	NA	0.006	0.000	0.000	0.000	0.000	0.000	0.000
31	0.001	NA	0.000	0.000	0.000	0.016	NA	0.000	NA	0.000	0.000	NA

Partial Data

Flow Rate

Average	0.009	0.004	0.002	0.001	0.003	0.018	0.068	0.087	0.006	0.032	0.030	0.019
Maximum	0.139	0.050	0.037	0.011	0.025	0.115	0.667	1.027	0.145	0.549	0.722	0.489
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Partial Data

Discharge

Cubic Feet	24316	10183	4505	2045	4359	47860	176389	234087	14906	85499	80622	50294
Gallons	181897	76174	33700	15301	32606	358016	1319481	1751091	111502	639578	603097	376227
Acre-Feet	0.56	0.23	0.10	0.05	0.10	1.10	4.05	5.37	0.34	1.96	1.85	1.15

Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.024
GPM	10.7
Cubic Feet	735085
Gallons	5498670
Acre-Feet	16.87

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.19 GS39: 903/904 Pad Sub-Drainage Area

Table A-19. WY01 Discharge Summary for GS39: 903/904 Pad Sub-Drainage Area.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0219	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0598	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1033	0.0000	0.0000	0.0000	0.0000
5	0.0139	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000	0.1720	0.0014	0.0002	0.0000	0.0000
6	0.0072	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000
7	0.0023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0804
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1188	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0003	0.0000	0.0000	0.0335	0.0001	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0001	0.0157	0.0822	0.0000	0.0000	0.0063	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0046	0.0503	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0013	0.0096	0.0000	0.0188	0.0525	0.0000	0.0054
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0057	0.0000	0.0001	0.1129	0.0000	0.0024
15	0.0000	0.0000	0.0000	0.0000	0.0015	0.0000	0.0025	0.0000	0.0000	0.0000	0.0314	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0014	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0178	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0147	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0163	0.0237	0.0000	0.0000	0.0000	0.0000
22	0.0219	0.0000	0.0000	0.0000	0.0000	0.0000	0.0802	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0399	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0004	0.0000	0.0000	0.0001	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0193	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0046	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0011	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0015	0.0000	0.0000	0.0000	0.0001	0.0020	0.0097	0.0138	0.0007	0.0066	0.0049	0.0029
Maximum	0.0219	0.0014	0.0004	0.0000	0.0015	0.0193	0.0822	0.1720	0.0188	0.1129	0.1188	0.0804
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	3937	122	33	0	140	5237	25211	36898	1734	17766	12992	7621
Gallons	29448	909	247	0	1048	39178	188588	276013	12975	132899	97189	57009
Acre-Feet	0.09	0.00	0.00	0.00	0.00	0.12	0.58	0.85	0.04	0.41	0.30	0.17

Annual Summaries for WY01

Ft ³ /Sec	0.0035
GPM	1.59
Cubic Feet	111691
Gallons	835504
Acre-Feet	2.564

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.20 GS40: South Walnut Creek East of 750 Pad

Table A-20. WY01 Discharge Summary for GS40: South Walnut Creek East of 750 Pad.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.041	0.022	0.026	0.014	0.017	0.032	0.041	0.051	0.014	0.037	0.075	0.040
2	0.044	0.024	0.025	0.012	0.019	0.034	0.046	0.254	0.018	0.035	0.049	0.030
3	0.074	0.031	0.023	0.014	0.020	0.034	0.044	0.376	0.018	0.037	0.038	0.026
4	0.046	0.023	0.023	0.014	0.015	0.034	0.037	0.576	0.052	0.038	0.047	0.025
5	0.204	0.056	0.023	0.013	0.016	0.033	0.032	0.949	0.037	0.051	0.046	0.026
6	0.125	0.024	0.051	0.013	0.015	0.022	0.031	0.114	0.013	0.087	0.038	0.027
7	0.067	0.024	0.028	0.014	0.016	0.024	0.022	0.085	0.037	0.029	0.031	0.072
8	0.056	0.024	0.020	0.014	0.024	0.029	0.011	0.074	0.017	0.084	0.032	0.572
9	0.058	0.024	0.019	0.014	0.019	0.026	0.014	0.069	0.019	0.031	0.790	0.037
10	0.059	0.025	0.020	0.013	0.025	0.140	0.043	0.065	0.026	0.232	0.052	0.037
11	0.060	0.041	0.024	0.014	0.076	0.123	0.318	0.062	0.031	0.127	0.048	0.040
12	0.082	0.037	0.022	0.015	0.022	0.065	0.355	0.059	0.029	0.046	0.047	0.043
13	0.123	0.026	0.018	0.014	0.016	0.094	0.162	0.055	0.220	0.293	0.058	0.144
14	0.053	0.028	0.026	0.013	0.034	0.026	0.059	0.069	0.038	0.721	0.065	0.088
15	0.054	0.028	0.021	0.013	0.051	0.026	0.034	0.050	0.036	0.038	0.212	0.051
16	0.055	0.029	0.024	0.030	0.019	0.024	0.026	0.051	0.036	0.034	0.025	0.058
17	0.054	0.029	0.023	0.024	0.020	0.078	0.025	0.101	0.036	0.045	0.026	0.066
18	0.051	0.052	0.020	0.017	0.021	0.027	0.024	0.050	0.036	0.050	0.024	0.044
19	0.048	0.036	0.015	0.013	0.023	0.025	0.026	0.193	0.039	0.055	0.025	0.046
20	0.051	0.029	0.019	0.015	0.025	0.027	0.038	0.185	0.040	0.058	0.046	0.050
21	0.054	0.028	0.021	0.014	0.026	0.034	0.175	0.204	0.040	0.046	0.022	0.051
22	0.287	0.029	0.022	0.012	0.025	0.029	0.461	0.063	0.040	0.045	0.028	0.047
23	0.050	0.029	0.014	0.016	0.026	0.030	0.352	0.053	0.040	0.044	0.023	0.049
24	0.042	0.029	0.015	0.015	0.027	0.034	0.091	0.046	0.042	0.049	0.023	0.051
25	0.038	0.030	0.016	0.016	0.028	0.036	0.068	0.041	0.043	0.059	0.028	0.050
26	0.036	0.028	0.026	0.021	0.031	0.148	0.058	0.034	0.054	0.080	0.032	0.050
27	0.034	0.028	0.016	0.018	0.031	0.077	0.053	0.029	0.033	0.057	0.035	0.046
28	0.032	0.029	0.015	0.022	0.038	0.033	0.058	0.130	0.034	0.065	0.038	0.043
29	0.027	0.029	0.015	0.032	NA	0.089	0.055	0.029	0.035	0.061	0.038	0.040
30	0.026	0.027	0.012	0.022	NA	0.036	0.051	0.025	0.036	0.064	0.038	0.038
31	0.041	NA	0.013	0.018	NA	0.067	NA	0.014	NA	0.065	0.041	NA

Flow Rate

Average	0.067	0.030	0.021	0.016	0.026	0.050	0.094	0.134	0.040	0.089	0.068	0.066
Maximum	0.287	0.056	0.051	0.032	0.076	0.148	0.461	0.949	0.220	0.721	0.790	0.572
Minimum	0.026	0.022	0.012	0.012	0.015	0.022	0.011	0.014	0.013	0.029	0.022	0.025

Discharge

Cubic Feet	178938	77468	56403	44016	62666	132720	242937	358937	102790	238773	183231	171507
Gallons	1338551	579500	421921	329266	468773	992816	1817297	2685036	768920	1786144	1370661	1282959
Acre-Feet	4.11	1.78	1.29	1.01	1.44	3.05	5.58	8.24	2.36	5.48	4.21	3.94

Annual Summaries for WY01

Ft ³ /Sec	0.059
GPM	26.3
Cubic Feet	1850385
Gallons	13841845
Acre-Feet	42.48

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.21 GS41: Unnamed Gulch Tributary to Walnut Creek Southwest of GS03

Table A-21. WY01 Discharge Summary for GS41: Unnamed Walnut Creek Tributary.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.4E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	1.0E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	7.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-03	1.4E-06	0.0E+00	0.0E+00	0.0E+00
5	4.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.1E-02	9.3E-08	0.0E+00	0.0E+00	0.0E+00
6	3.1E-05	0.0E+00	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7	1.3E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
8	2.0E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
9	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.9E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
12	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.3E-06	0.0E+00	2.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
13	0.0E+00	2.9E-05	0.0E+00	0.0E+00	2.0E-06	0.0E+00	2.1E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
14	0.0E+00	4.6E-05	3.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.1E-07	2.0E-07	0.0E+00	0.0E+00	0.0E+00
15	0.0E+00	4.6E-05	0.0E+00	0.0E+00	1.2E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
16	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
17	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.5E-06	1.2E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
18	0.0E+00	6.4E-06	0.0E+00	0.0E+00	6.1E-07	0.0E+00	0.0E+00	5.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
19	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.0E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
21	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.6E-06	2.2E-06	5.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
22	4.4E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.7E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
23	8.8E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
24	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.3E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
26	0.0E+00	0.0E+00	5.1E-06	0.0E+00	0.0E+00	3.9E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
27	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
28	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
29	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	3.3E-06	4.1E-07	5.9E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
30	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	2.8E-06	0.0E+00	1.6E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
31	0.0E+00	NA	0.0E+00	0.0E+00	NA	7.5E-06	NA	2.6E-06	NA	0.0E+00	0.0E+00	NA

Flow Rate

Average	4.7E-06	4.2E-06	6.4E-07	0.0E+00	1.3E-06	3.3E-06	1.9E-04	7.4E-04	3.7E-07	0.0E+00	0.0E+00	0.0E+00
Maximum	4.4E-05	4.6E-05	1.1E-05	0.0E+00	1.2E-05	2.6E-05	5.5E-03	2.1E-02	9.3E-06	0.0E+00	0.0E+00	0.0E+00
Minimum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Discharge

Cubic Feet	13	11	2	0	3	9	496	1974	1	0	0	0
Gallons	95	82	13	0	23	66	3708	14765	7	0	0	0
Acra-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	8.0E-05
GPM	0.036
Cubic Feet	2508
Gallons	18759
Acra-Feet	0.058

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.22 GS42: Unnamed Gulch Tributary to the SID North of SW027

Table A-22. WY01 Discharge Summary for GS42: Unnamed Gulch Tributary to SID.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0336	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0091	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.000	0.009	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	2945	0	786	0	0
Gallons	0	0	0	0	0	0	0	22032	0	5881	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.02	0.00	0.00

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

Ft ³ /Sec	0.0001
GPM	0.05
Cubic Feet	3731
Gallons	27913
Acre-Feet	0.086

A.1.23 GS43: Building 886 Sub-Drainage Area

Table A-23. WY01 Discharge Summary for GS43: B886 Sub-drainage.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0106	0.0000	0.0000	0.0000	0.0000
5	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0265	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0140	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0020	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0016	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009	0.0000	0.0000	0.0013	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0065	0.0004	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0009	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0040	0.0002	0.0000	0.0087	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0000	0.0027	0.0000	0.0000
16	0.0027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0030	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0013	0.0000	0.0000	0.0000	0.0000
22	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0009	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.000	0.000	0.000	0.000
Maximum	0.003	0.000	0.000	0.003	0.001	0.000	0.006	0.027	0.000	0.009	0.001	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	262	3	0	275	51	61	1814	6791	1	987	118	5
Gallons	1957	21	4	2059	383	457	13570	50798	8	7385	881	34
Acre-Feet	0.01	0.00	0.00	0.01	0.00	0.00	0.04	0.16	0.00	0.02	0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.0003
GPM	0.15
Cubic Feet	10368
Gallons	77557
Acre-Feet	0.238

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.24 GS44: Ditch West of B771 North of T771L

Table A-24. WY01 Discharge Summary for GS44: Ditch West of B771 North of T771L.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	0.002	0.002	0.001	0.001	0.002	0.002	0.003	0.003	0.002	0.007	0.001
2	No Data	0.002	0.002	0.001	0.002	0.002	0.002	0.024	0.003	0.002	0.003	0.000
3	No Data	0.002	0.002	0.001	0.002	0.002	0.002	0.044	0.003	0.002	0.002	0.000
4	No Data	0.002	0.002	0.001	0.001	0.002	0.002	0.074	0.003	0.002	0.002	0.000
5	0.013	0.003	0.002	0.001	0.001	0.002	0.002	0.135	0.004	0.002	0.001	0.000
6	0.005	0.002	0.003	0.001	0.002	0.001	0.002	0.018	0.003	0.004	0.001	0.000
7	0.003	0.001	0.001	0.001	0.002	0.001	0.002	0.010	0.003	0.002	0.001	0.001
8	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.008	0.003	0.003	0.001	0.037
9	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.006	0.003	0.002	0.080	0.002
10	0.002	0.001	0.002	0.001	0.002	0.013	0.004	0.005	0.003	0.012	0.004	0.001
11	0.002	0.002	0.002	0.001	0.005	0.014	0.042	0.005	0.003	0.014	0.002	0.000
12	0.002	0.002	0.002	0.001	0.002	0.005	0.052	0.008	0.003	0.003	0.002	0.000
13	0.002	0.001	0.002	0.002	0.002	0.008	0.020	0.007	0.013	0.031	0.002	0.004
14	0.003	0.001	0.002	0.001	0.002	0.002	0.007	0.007	0.003	0.078	0.003	0.004
15	0.002	0.001	0.001	0.001	0.004	0.002	0.005	0.004	0.002	0.007	0.014	0.001
16	0.002	0.001	0.002	0.002	0.002	0.002	0.005	0.003	0.002	0.003	0.002	0.001
17	0.002	0.001	0.001	0.002	0.002	0.006	0.004	0.005	0.002	0.004	0.002	0.001
18	0.002	0.002	0.001	0.001	0.002	0.002	0.003	0.004	0.002	0.005	0.002	0.000
19	0.002	0.002	0.001	0.001	0.002	0.002	0.003	0.015	0.003	0.004	0.003	0.000
20	0.002	0.001	0.001	0.001	0.002	0.002	0.003	0.019	0.003	0.005	0.003	0.000
21	0.002	0.001	0.001	0.001	0.002	0.002	0.017	0.019	0.002	0.006	0.002	0.000
22	0.023	0.001	0.001	0.001	0.002	0.002	0.051	0.004	0.002	0.006	0.002	0.000
23	0.003	0.001	0.001	0.001	0.002	0.002	0.050	0.004	0.002	0.006	0.002	0.000
24	0.002	0.001	0.001	0.001	0.002	0.002	0.011	0.003	0.002	0.007	0.002	0.000
25	0.002	0.001	0.001	0.002	0.002	0.002	0.007	0.003	0.002	0.007	0.002	0.000
26	0.002	0.001	0.001	0.002	0.002	0.015	0.005	0.003	0.002	0.008	0.002	0.000
27	0.002	0.001	0.001	0.002	0.002	0.008	0.005	0.003	0.002	0.008	0.001	0.000
28	0.002	0.001	0.001	0.002	0.002	0.003	0.004	0.008	0.002	0.007	0.001	0.000
29	0.002	0.001	0.001	0.002	NA	0.008	0.004	0.003	0.002	0.007	0.001	0.000
30	0.002	0.001	0.001	0.002	NA	0.002	0.003	0.003	0.002	0.007	0.001	0.000
31	0.002	NA	0.001	0.001	NA	0.005	NA	0.003	NA	0.006	0.001	NA

Partial Data

Flow Rate

Average	0.004	0.002	0.002	0.001	0.002	0.004	0.011	0.015	0.003	0.008	0.005	0.002
Maximum	0.023	0.003	0.003	0.002	0.005	0.015	0.052	0.135	0.013	0.078	0.080	0.037
Minimum	0.002	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.002	0.002	0.001	0.000

Partial Data

Discharge

Cubic Feet	8232	4005	4029	3502	4774	10545	27948	39847	7434	22584	13374	4536
Gallons	61578	29956	30137	26200	35711	78881	209066	298080	55610	168944	100042	33935
Acre-Feet	0.19	0.09	0.09	0.08	0.11	0.24	0.64	0.91	0.17	0.52	0.31	0.10

Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.005
GPM	2.2
Cubic Feet	150810
Gallons	1128139
Acre-Feet	3.46

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.25 GS45: Upper Church Ditch at West Gravel Pits

Table A-25. WY01 Discharge Summary for GS45: Upper Church Ditch at West Gravel Pits.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	3.988	4.049	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	3.998	4.020	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.121	4.023	4.014	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.371	4.018	3.982	0.000	0.000
5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1.431	3.956	2.927	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.186	2.190	1.163	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.073	0.260	3.345	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.026	3.373	0.000	0.003
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.005	3.292	0.009	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.002	3.182	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.005	2.584	0.815	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.004	3.810	0.007	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.181	0.002	3.763	0.008	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.201	0.000	3.757	0.099	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.132	0.000	3.762	0.009	0.001	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.000	3.806	0.007	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.000	3.823	0.003	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	3.810	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	3.869	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	3.914	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.005	3.854	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.001	3.802	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.303	1.588	3.876	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.202	3.790	3.923	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.063	3.836	3.946	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.002	0.026	3.851	3.967	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.002	0.011	3.881	3.989	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.007	2.999	4.009	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000		0.000	0.004	2.363	4.010	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.001	0.001	3.950	4.035	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.002	NA	3.967	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.044	1.048	3.292	1.106	0.000	0.000
Maximum	0.007	0.000	0.000	0.000	0.000	0.002	0.303	3.967	4.035	4.049	0.009	0.003
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000

Discharge

Cubic Feet	604	0	0	0	0	658	113696	2807609	8533798	2963034	825	259
Gallons	4515	0	0	0	0	4926	850505	21002374	63837245	22165032	6168	1936
Acre-Feet	0.01	0.00	0.00	0.00	0.00	0.02	2.61	64.45	195.91	68.02	0.02	0.01

Annual Summaries for WY01

Fr ³ /Sec	0.457
GPM	205.2
Cubic Feet	14420482
Gallons	107872700
Acre-Feet	331.05

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.26 GS46: McKay Ditch at West Gravel Pits

Table A-26. WY01 Discharge Summary for GS46: Upper Church Ditch at West Gravel Pits.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	5.003	4.773	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.033	4.970	4.767	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.178	5.053	4.761	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.642	5.068	4.771	0.000	0.000
5	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1.940	4.984	3.636	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.245	2.849	1.612	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.092	0.493	4.548	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.108	4.621	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	4.612	0.007	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.000	4.616	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.139	0.013	3.542	1.248	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.146	0.006	4.831	0.006	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.013	0.281	0.000	4.728	0.002	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.010	0.257	0.000	4.573	0.225	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.109	0.000	4.387	0.024	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.000	4.323	0.005	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.001	0.018	0.000	4.576	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.002	0.013	0.000	4.829	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	4.937	0.001	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	4.909	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.026	4.849	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.138	0.007	4.831	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.614	2.177	4.812	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.253	5.129	4.803	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.071	5.160	4.836	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.008	0.030	5.142	4.840	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.012	0.015	5.112	4.814	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.006	0.009	3.930	4.788	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.006	0.006	3.031	4.780	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.008	0.001	5.076	4.771	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.007	NA	5.035	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.002	0.072	1.389	4.076	1.427	0.000	0.000
Maximum	0.009	0.000	0.000	0.000	0.000	0.013	0.614	5.160	5.068	4.773	0.007	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	813	0	0	0	0	6302	185822	3720798	10565624	3821197	578	20
Gallons	6082	0	0	0	0	47145	1390046	27833502	79036360	28584541	4325	148
Acre-Feet	0.02	0.00	0.00	0.00	0.00	0.14	4.27	85.42	242.55	87.72	0.01	0.00

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

Ft ³ /Sec	0.580
GPM	260.5
Cubic Feet	18301154
Gallons	136902149
Acre-Feet	420.14

A.1.27 GS49: Ditch Northwest of B566

Table A-27. WY01 Discharge Summary for GS49: Ditch Northwest of B566.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	0.0000	0.0005	0.0001	0.0000	0.0000	0.0000	0.0000	0.0010	0.0000
2	No Data	No Data	No Data	0.0000	0.0023	0.0005	0.0000	0.0091	0.0000	0.0000	0.0004	0.0000
3	No Data	No Data	No Data	0.0000	0.0019	0.0000	0.0000	0.0141	0.0000	0.0000	0.0000	0.0000
4	No Data	No Data	No Data	0.0000	0.0008	0.0000	0.0000	0.0266	0.0040	0.0000	0.0000	0.0000
5	No Data	No Data	No Data	0.0000	0.0007	0.0000	0.0000	0.0548	0.0014	0.0003	0.0000	0.0000
6	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0037	0.0000	0.0014	0.0001	0.0000
7	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0028	0.0011	0.0000	0.0000	0.0012
8	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0022	0.0000	0.0026	0.0000	0.0213
9	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0011	0.0000	0.0000	0.0340	0.0001
10	No Data	No Data	No Data	0.0000	0.0000	0.0055	0.0029	0.0004	0.0000	0.0067	0.0012	0.0000
11	No Data	No Data	No Data	0.0000	0.0088	0.0079	0.0257	0.0000	0.0000	0.0055	0.0001	0.0000
12	No Data	No Data	No Data	0.0000	0.0037	0.0048	0.0163	0.0000	0.0000	0.0007	0.0000	0.0000
13	No Data	No Data	No Data	0.0000	0.0009	0.0118	0.0083	0.0000	0.0082	0.0106	0.0011	0.0036
14	No Data	No Data	No Data	0.0000	0.0021	0.0007	0.0029	0.0010	0.0001	0.0373	0.0011	0.0018
15	No Data	No Data	No Data	0.0000	0.0060	0.0000	0.0003	0.0000	0.0000	0.0001	0.0070	0.0000
16	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000
17	No Data	No Data	No Data	0.0000	0.0028	0.0043	0.0000	0.0030	0.0000	0.0000	0.0000	0.0005
18	No Data	No Data	No Data	0.0015	0.0007	0.0028	0.0000	0.0005	0.0000	0.0000	0.0000	0.0002
19	No Data	No Data	No Data	0.0004	0.0005	0.0001	0.0000	0.0051	0.0000	0.0000	0.0000	0.0000
20	No Data	No Data	No Data	0.0316	0.0000	0.0000	0.0002	0.0061	0.0000	0.0000	0.0003	0.0000
21	No Data	No Data	No Data	0.0050	0.0007	0.0005	0.0065	0.0096	0.0000	0.0000	0.0000	0.0000
22	No Data	No Data	No Data	0.0000	0.0000	0.0004	0.0287	0.0004	0.0000	0.0000	0.0000	0.0000
23	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0233	0.0000	0.0000	0.0000	0.0000	0.0000
24	No Data	No Data	No Data	0.0000	0.0000	0.0017	0.0053	0.0000	0.0000	0.0000	0.0000	0.0000
25	No Data	No Data	No Data	0.0000	0.0000	0.0010	0.0018	0.0000	0.0000	0.0005	0.0000	0.0000
26	No Data	No Data	No Data	0.0000	0.0000	0.0078	0.0004	0.0000	0.0005	0.0006	0.0000	0.0000
27	No Data	No Data	No Data	0.0000	0.0000	0.0086	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
28	No Data	No Data	No Data	0.0000	0.0018	0.0000	0.0005	0.0040	0.0000	0.0000	0.0000	0.0000
29	No Data	No Data	0.0000	0.0001	NA	0.0040	0.0001	0.0005	0.0000	0.0000	0.0000	0.0000
30	No Data	No Data	0.0000	0.0205	NA	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	No Data	NA	0.0000	0.0000	NA	0.0026	NA	0.0000	NA	0.0000	0.0000	NA

No Data No Data Partial Data

Flow Rate

Average			0.000	0.002	0.001	0.002	0.004	0.005	0.000	0.002	0.001	0.001
Maximum			0.000	0.032	0.009	0.012	0.029	0.055	0.006	0.037	0.034	0.021
Minimum			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

No Data No Data Partial Data

Discharge

Cubic Feet			0	5112	2949	5670	10659	12535	1155	5752	4005	2484
Gallons			0	38238	22062	42417	79732	93766	8641	43026	29960	18584
Acre-Feet			0.00	0.12	0.07	0.13	0.24	0.29	0.03	0.13	0.09	0.06

No Data No Data Partial Data

Annual Summaries for WY01

ft ³ /Sec	0.0021
GPM	0.95
Cubic Feet	50321
Gallons	376426
Acre-Feet	1.155

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.28 GS50: Ditch Northeast of B990

Table A-28. WY01 Discharge Summary for GS50: Ditch Northeast of B990.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0126	0.0000	0.0000	0.0000	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0319	0.0000	0.0000	0.0000	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0095	0.0000
10	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	No Data	No Data	No Data	No Data	No Data	No Data	0.0191	0.0000	0.0000	0.0000	0.0000	0.0000
13	No Data	No Data	No Data	No Data	No Data	No Data	0.0016	0.0000	0.0000	0.0000	0.0000	0.0000
14	No Data	No Data	No Data	No Data	No Data	No Data	0.0004	0.0000	0.0000	0.0466	0.0000	0.0000
15	No Data	No Data	No Data	No Data	No Data	No Data	0.0003	0.0000	0.0000	0.0021	0.0000	0.0000
16	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	No Data	No Data	No Data	No Data	No Data	No Data	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
18	No Data	No Data	No Data	No Data	No Data	No Data	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
19	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	No Data	No Data	No Data	No Data	No Data	No Data	0.0374	0.0000	0.0000	0.0000	0.0000	0.0000
23	No Data	No Data	No Data	No Data	No Data	No Data	0.0079	0.0000	0.0000	0.0000	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

No Data No Data No Data No Data No Data Partial Data

Flow Rate

Average						0.000	0.002	0.001	0.000	0.002	0.000	0.000
Maximum						0.000	0.037	0.032	0.000	0.047	0.009	0.000
Minimum						0.000	0.000	0.000	0.000	0.000	0.000	0.000

No Data No Data No Data No Data No Data Partial Data

Discharge

Cubic Feet						0	5822	3864	0	4210	824	0
Gallons						0	43551	28908	0	31493	6161	0
Acre-Feet						0.00	0.13	0.09	0.00	0.10	0.02	0.00

No Data No Data No Data No Data No Data Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.0009
GPM	0.41
Cubic Feet	14720
Gallons	110113
Acre-Feet	0.338

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.29 GS51: Ditch South of 903 Pad

Table A-29. WY01 Discharge Summary for GS51: Ditch South of 903 Pad.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	No Data	NA	No Data	NA	No Data	0.0000	NA
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data

Flow Rate

Average												0.000	0.000
Maximum												0.000	0.000
Minimum												0.000	0.000
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data	

Discharge

Cubic Feet												0	0
Gallons												0	0
Acre-Feet												0.00	0.00
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data	

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

Ft ³ /Sec	0.0000
GPM	0.00
Cubic Feet	0
Gallons	0
Acre-Feet	0.0000

Partial Data

A.1.30 GS52: Drainage Swale Southeast of 903 Pad

Table A-30. WY01 Discharge Summary for GS52: Drainage Swale Southeast of 903 Pad.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	No Data	NA	No Data	NA	0.0000	0.0000	NA
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data	

Flow Rate

Average											0.000	0.000	0.000
Maximum											0.000	0.000	0.000
Minimum											0.000	0.000	0.000
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data		

Discharge

Cubic Feet											0	0	0
Gallons											0	0	0
Acre-Feet											0.00	0.00	0.00
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data		

Annual Summaries for WY01

Fr ³ /Sec	0.0000
GPM	0.00
Cubic Feet	0
Gallons	0
Acre-Feet	0.000
Partial Data	

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.31 GS53: Drainage Swale Southeast of 903 Pad

Table A-31. WY01 Discharge Summary for GS53: Drainage Swale Southeast of 903 Pad.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	No Data	NA	No Data	NA	No Data	0.0000	NA
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data	

Flow Rate

Average											0.000	0.000
Maximum											0.000	0.000
Minimum											0.000	0.000
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data	

Discharge

Cubic Feet											0	0
Gallons											1	2
Acre-Feet											0.00	0.00
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data	

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

Fr ³ /Sec	0.0000
GPM	0.00
Cubic Feet	0
Gallons	2
Acre-Feet	0.000
	Partial Data

A.1.32 GS54: Drainage Swale East-Southeast of 903 Pad

Table A-32. WY01 Discharge Summary for GS54: Drainage Swale East-Southeast of 903 Pad.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	No Data	NA	No Data	NA	No Data	0.0000	NA

Flow Rate

Average											0.000	0.000
Maximum											0.000	0.000
Minimum											0.000	0.000

Discharge

Cubic Feet											0	0
Gallons											0	0
Acre-Feet											0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.0000
GPM	0.00
Cubic Feet	0
Gallons	0
Acre-Feet	0.0000

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.33 SW009: McKay Bypass Upstream of West Diversion

Table A-33. WY01 Discharge Summary for SW009: McKay Bypass Canal Upstream of West Diversion.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	9.846	9.525	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	9.864	9.462	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.534	9.922	9.406	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.292	9.949	9.404	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.853	9.822	7.412	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.985	5.908	2.769	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.381	0.969	8.461	0.000	0.000
8	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.208	0.193	8.623	0.000	0.006
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.120	0.045	8.533	0.014	0.010
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.074	0.014	8.437	0.011	0.004
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.049	6.330	2.619	0.009	0.001
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	9.660	0.089	0.003	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.895	0.017	9.672	0.045	0.001	0.001
14	0.000	0.000	0.000	0.000	0.000	0.000	0.876	0.000	9.568	0.728	0.004	0.006
15	0.000	0.000	0.000	0.000	0.000	0.000	0.520	0.000	9.528	0.170	0.014	0.012
16	0.000	0.000	0.000	0.000	0.000	0.000	0.237	0.000	9.566	0.031	0.012	0.009
17	0.000	0.000	0.000	0.000	0.000	0.000	0.147	0.003	9.558	0.004	0.010	0.011
18	0.000	0.000	0.000	0.000	0.000	0.000	0.103	0.001	9.457	0.001	0.004	0.011
19	0.000	0.000	0.000	0.000	0.000	0.000	0.061	0.013	9.540	0.000	0.000	0.005
20	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.005	9.580	0.000	0.000	0.001
21	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.011	9.438	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.372	0.000	9.337	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	2.089	3.542	9.388	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	1.352	9.598	9.456	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.423	9.756	9.491	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.199	9.772	9.508	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.114	9.776	9.508	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.071	7.927	9.484	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.045	5.624	9.473	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.029	9.858	9.492	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	9.859	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.253	2.818	8.118	2.765	0.003	0.003
Maximum	0.001	0.000	0.000	0.000	0.000	0.000	2.089	9.859	9.949	9.525	0.014	0.012
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000

Discharge

Cubic Feet	137	0	0	0	0	0	655840	7548283	21042552	7406366	7110	6580
Gallons	1025	0	0	0	0	0	4906025	56465083	157409228	55403469	53183	49223
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	15.06	173.28	483.07	170.03	0.16	0.15

Annual Summaries for WY01

Ft ³ /Sec	1.163
GPM	521.9
Cubic Feet	36666867
Gallons	274287235
Acre-Feet	841.76

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.34 SW022: East End of Central Avenue Ditch

Table A-34. WY01 Discharge Summary for SW022: East End of Central Avenue Ditch.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.225	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.611	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.909	0.011	0.000	0.000	0.000
5	0.070	0.000	0.000	0.000	0.000	0.000	0.000	1.765	0.036	0.000	0.000	0.000
6	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.043	0.000	0.012	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.008	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.029	0.000	0.853
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.752	0.007
10	0.000	0.000	0.000	0.000	0.000	0.094	0.000	0.000	0.000	0.273	0.016	0.000
11	0.000	0.000	0.000	0.000	0.000	0.140	0.609	0.000	0.000	0.078	0.005	0.000
12	0.000	0.000	0.000	0.000	0.000	0.015	0.575	0.000	0.000	0.007	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.023	0.113	0.000	0.267	0.397	0.000	0.086
14	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.000	0.005	0.621	0.003	0.058
15	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.031	0.344	0.001
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.000
17	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.010	0.000	0.000	0.000	0.001
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.183	0.000	0.000	0.000	0.019
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.197	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.138	0.234	0.000	0.000	0.000	0.000
22	0.141	0.000	0.000	0.000	0.000	0.000	1.041	0.005	0.000	0.000	0.000	0.000
23	0.006	0.000	0.000	0.000	0.000	0.000	0.436	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.099	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.101	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.039	0.000	0.008	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.007	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.008	0.000	0.000	0.000	0.000	0.014	0.098	0.139	0.011	0.047	0.036	0.034
Maximum	0.141	0.000	0.000	0.000	0.000	0.140	1.041	1.765	0.267	0.621	0.752	0.853
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	21475	0	0	0	0	38350	255252	371986	28315	125556	96982	88546
Gallons	160644	0	0	0	0	286880	1909421	2782650	211814	939223	725479	662371
Acre-Feet	0.49	0.00	0.00	0.00	0.00	0.88	5.86	8.54	0.65	2.88	2.23	2.03

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Ft ³ /Sec	0.033
GPM	14.6
Cubic Feet	1026464
Gallons	7678483
Acre-Feet	23.56

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.35 SW027: South Interceptor Ditch at Pond C-2

Table A-35. WY01 Discharge Summary for SW027: South Interceptor Ditch at Pond C-2.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.005	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.006	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.544	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.851	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.087	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.343	0.000	0.000	0.000	0.000
7	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.000	0.000	0.000	0.000
8	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.000	0.000	0.000	0.251
9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.340	0.026
10	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	0.024	0.007
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.004	0.002
12	0.000	0.000	0.000	0.000	0.000	0.126	0.929	0.011	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.244	0.555	0.009	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.143	0.230	0.006	0.000	0.819	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.029	0.078	0.002	0.000	0.236	0.050	0.000
16	0.000	0.000	0.000	0.000	0.000	0.015	0.029	0.000	0.000	0.013	0.048	0.000
17	0.000	0.000	0.000	0.000	0.000	0.012	0.015	0.000	0.000	0.005	0.005	0.000
18	0.000	0.000	0.000	0.000	0.000	0.011	0.011	0.000	0.000	0.004	0.001	0.000
19	0.000	0.000	0.000	0.000	0.000	0.013	0.009	0.051	0.000	0.016	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.008	0.009	0.018	0.000	0.004	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.003	0.009	0.359	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.746	0.097	0.000	0.000	0.000	0.000
23	0.043	0.000	0.000	0.000	0.000	0.000	0.978	0.018	0.000	0.000	0.000	0.000
24	0.005	0.000	0.000	0.000	0.000	0.000	0.317	0.012	0.000	0.000	0.000	0.000
25	0.003	0.000	0.000	0.000	0.000	0.000	0.059	0.008	0.000	0.000	0.000	0.000
26	0.001	0.000	0.000	0.000	0.000	0.000	0.022	0.004	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.092	0.014	0.001	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.064	0.011	0.002	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.019	0.011	0.001	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.053	0.010	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.021	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.003	0.000	0.000	0.000	0.000	0.027	0.136	0.180	0.000	0.035	0.015	0.010
Maximum	0.043	0.000	0.000	0.000	0.000	0.244	0.978	3.087	0.000	0.819	0.340	0.251
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	6815	0	0	0	0	73622	351859	482760	0	94801	40603	24782
Gallons	50980	0	0	0	0	550729	2632089	3611293	0	709159	303733	185382
Acro-Feet	0.16	0.00	0.00	0.00	0.00	1.69	8.08	11.08	0.00	2.18	0.93	0.57

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Ft ³ /Sec	0.034
GPM	15.3
Cubic Feet	1075241
Gallons	8043364
Acro-Feet	24.68

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.36 SW055: Ditch South of 903 Pad at Inner Fence

Table A-36. WY01 Discharge Summary for SW055: Ditch South of 903 Pad at Inner Fence.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0005	0.0000	0.0000	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0005	0.0000	0.0000	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0001
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0001	0.0000
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0001	0.0000	0.0000
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0001	0.0000	0.0000
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0003	0.0000	0.0000	0.0000
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0008	0.0000	0.0000
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0014	0.0000	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	No Data			0.0005	0.0000	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	No Data			0.0000	0.0000	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	No Data	NA		0.0000	NA	0.0000	NA

No Data No Data No Data No Data No Data No Data No Data No Data Partial Data

Flow Rate

Average								0.000	0.000	0.000	0.000	0.000
Maximum								0.001	0.001	0.001	0.000	0.000
Minimum								0.000	0.000	0.000	0.000	0.000

No Data No Data No Data No Data No Data No Data No Data No Data Partial Data

Discharge

Cubic Feet								169	116	89	9	10
Gallons								1265	869	668	65	77
Acre-Feet								0.00	0.00	0.00	0.00	0.00

No Data No Data No Data No Data No Data No Data No Data No Data Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.0000
GPM	0.02
Cubic Feet	394
Gallons	2944
Acre-Feet	0.009

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.37 SW091: North Walnut Creek Tributary Northeast of Solar Ponds

Table A-37. WY01 Discharge Summary for SW091: North Walnut Creek Tributary Northeast of Solar Ponds.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0978	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0075	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0023	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0034	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.098	0.000	0.003	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	2	0	0	0	24	10705	1	306	3	1
Gallons	0	2	17	0	0	0	179	80081	5	2288	21	6
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.01	0.00	0.00

Annual Summaries for WY01

Ft ³ /Sec	0.0004
GPM	0.16
Cubic Feet	11042
Gallons	82599
Acre-Feet	0.253

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.38 SW093: North Walnut Creek 1300' Upstream of A-1 Bypass

Table A-38. WY01 Discharge Summary for SW093: North Walnut Creek Upstream of A-1 Bypass.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.085	0.104	0.116	0.064	0.061	0.110	0.128	0.110	0.255	0.185	0.105	0.068
2	0.085	0.101	0.104	0.063	0.081	0.107	0.115	0.654	0.259	0.196	0.099	0.066
3	0.114	0.119	0.101	0.066	0.102	0.103	0.109	1.614	0.288	0.219	0.088	0.067
4	0.098	0.100	0.097	0.072	0.093	0.103	0.102	2.829	0.364	0.298	0.089	0.067
5	0.312	0.135	0.096	0.076	0.106	0.103	0.100	6.322	0.388	0.344	0.090	0.067
6	0.262	0.100	0.131	0.076	0.093	0.118	0.098	0.885	0.263	0.411	0.090	0.059
7	0.165	0.096	0.122	0.062	0.079	0.111	0.093	0.525	0.234	0.292	0.091	0.085
8	0.114	0.099	0.107	0.056	0.064	0.106	0.092	0.386	0.178	0.291	0.092	1.372
9	0.099	0.098	0.112	0.057	0.062	0.105	0.087	0.317	0.175	0.135	3.030	0.101
10	0.094	0.096	0.098	0.066	0.072	0.442	0.136	0.273	0.148	0.257	0.236	0.078
11	0.094	0.111	0.082	0.063	0.131	0.522	1.362	0.238	0.146	0.305	0.142	0.066
12	0.085	0.093	0.079	0.064	0.105	0.386	1.870	0.210	0.193	0.150	0.111	0.079
13	0.086	0.088	0.083	0.066	0.095	0.364	1.084	0.190	0.454	0.844	0.118	0.228
14	0.090	0.074	0.097	0.065	0.106	0.208	0.644	0.206	0.229	6.097	0.140	0.213
15	0.087	0.076	0.105	0.061	0.120	0.143	0.473	0.173	0.206	0.358	0.548	0.112
16	0.087	0.073	0.091	0.066	0.094	0.118	0.354	0.153	0.178	0.145	0.156	0.093
17	0.094	0.069	0.103	0.073	0.104	0.231	0.308	0.236	0.156	0.121	0.118	0.095
18	0.099	0.086	0.089	0.069	0.113	0.144	0.286	0.187	0.124	0.132	0.103	0.091
19	0.094	0.087	0.087	0.062	0.139	0.128	0.241	0.568	0.150	0.119	0.098	0.084
20	0.097	0.079	0.095	0.070	0.121	0.128	0.217	0.574	0.126	0.109	0.102	0.083
21	0.102	0.090	0.079	0.065	0.123	0.127	0.502	0.758	0.127	0.106	0.100	0.088
22	0.535	0.092	0.091	0.071	0.129	0.119	2.457	0.201	0.142	0.103	0.098	0.091
23	0.184	0.086	0.092	0.071	0.128	0.106	2.382	0.147	0.124	0.104	0.099	0.090
24	0.138	0.086	0.090	0.070	0.130	0.100	0.804	0.238	0.147	0.124	0.100	0.090
25	0.124	0.088	0.087	0.072	0.120	0.100	0.501	0.254	0.149	0.209	0.099	0.088
26	0.115	0.089	0.085	0.074	0.118	0.429	0.366	0.255	0.159	0.181	0.097	0.090
27	0.109	0.093	0.086	0.067	0.113	0.280	0.305	0.282	0.186	0.171	0.088	0.089
28	0.120	0.091	0.089	0.051	0.110	0.151	0.254	0.452	0.166	0.150	0.083	0.095
29	0.117	0.086	0.077	0.073	NA	0.249	0.196	0.295	0.173	0.135	0.081	0.096
30	0.118	0.094	0.072	0.061	NA	0.184	0.148	0.281	0.178	0.124	0.070	0.101
31	0.129	NA	0.072	0.054	NA	0.195	NA	0.285	NA	0.097	0.066	NA

Flow Rate

Average	0.133	0.093	0.094	0.066	0.104	0.188	0.527	0.648	0.202	0.404	0.214	0.137
Maximum	0.535	0.135	0.131	0.076	0.139	0.522	2.457	6.322	0.454	6.097	3.030	1.372
Minimum	0.085	0.069	0.072	0.051	0.061	0.100	0.087	0.110	0.124	0.097	0.066	0.059

Discharge

Cubic Feet	356943	240248	252175	176694	251665	502793	1366289	1736611	523923	1081014	572657	354555
Gallons	2670122	1797182	1886399	1321766	1882585	3761155	10220552	12990756	3919214	8086548	4283773	2652255
Acre-Feet	8.19	5.52	5.79	4.06	5.78	11.54	31.37	39.87	12.03	24.82	13.15	8.14

Annual Summaries for WY01

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
 ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

Ft ³ /Sec	0.235
GPM	105.5
Cubic Feet	7415568
Gallons	55472307
Acre-Feet	170.24

A.1.39 SW118: North Walnut Creek 560' Upstream of Portal 3

Table A-39. WY01 Discharge Summary for SW118: North Walnut Creek Upstream of Portal 3.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.008	0.010	WR	WR	WR	WR	0.018	0.039	0.108	0.071	0.000	0.000
2	0.010	0.010	WR	WR	WR	WR	0.012	0.161	0.107	0.070	0.000	0.000
3	0.012	0.017	WR	WR	WR	WR	0.009	0.400	0.121	0.070	0.000	0.000
4	0.013	0.017	WR	WR	WR	WR	0.008	0.545	0.147	0.073	0.000	0.000
5	0.035	0.021	WR	WR	WR	WR	0.006	1.041	0.138	0.069	0.000	0.000
6	0.091	WR	WR	WR	WR	WR	0.007	0.293	0.109	0.051	0.000	0.000
7	0.084	WR	0.029	WR	WR	WR	0.007	0.193	0.067	0.050	0.000	0.000
8	0.047	WR	0.020	WR	WR	WR	0.007	0.140	0.048	0.060	0.000	0.114
9	0.037	WR	0.020	WR	WR	WR	0.008	0.116	0.034	0.061	0.184	0.020
10	0.027	WR	0.021	WR	WR	0.037	0.015	0.106	0.024	0.067	0.011	0.004
11	0.017	WR	WR	WR	WR	0.070	0.201	0.081	0.027	0.084	0.011	0.000
12	0.011	WR	WR	WR	WR	0.187	0.318	0.065	0.072	0.052	0.006	0.000
13	0.012	WR	WR	WR	WR	0.067	0.236	0.051	0.147	0.154	0.002	0.003
14	0.012	WR	WR	WR	WR	0.031	0.174	0.046	0.151	0.478	0.003	0.009
15	0.016	WR	WR	WR	WR	0.022	0.127	0.044	0.121	0.129	0.020	0.010
16	0.012	WR	WR	WR	WR	0.021	0.117	0.035	0.113	0.078	0.018	0.005
17	0.011	WR	WR	WR	WR	0.025	0.088	0.051	0.099	0.054	0.010	0.003
18	0.010	WR	WR	WR	WR	0.030	0.068	0.060	0.081	0.044	0.005	0.003
19	0.008	WR	WR	WR	WR	0.022	0.046	0.118	0.099	0.035	0.001	0.001
20	0.006	WR	WR	WR	WR	0.013	0.043	0.110	0.102	0.028	0.001	0.000
21	0.007	WR	WR	WR	WR	0.011	0.073	0.209	0.091	0.024	0.002	0.000
22	0.029	WR	WR	WR	WR	0.010	0.380	0.089	0.092	0.010	0.000	0.000
23	0.021	WR	WR	WR	WR	0.009	0.404	0.057	0.088	0.029	0.001	0.000
24	0.013	WR	WR	WR	WR	0.008	0.206	0.115	0.086	0.034	0.000	0.000
25	0.008	WR	WR	WR	WR	0.008	0.137	0.130	0.088	0.027	0.000	0.000
26	0.008	WR	WR	WR	WR	0.058	0.096	0.121	0.092	0.029	0.000	0.000
27	0.008	WR	WR	WR	WR	0.041	0.078	0.128	0.088	0.024	0.000	0.000
28	0.005	WR	WR	WR	WR	0.026	0.071	0.153	0.081	0.009	0.000	0.000
29	0.004	0.030	WR	WR	NA	0.029	0.059	0.104	0.072	0.000	0.000	0.000
30	0.006	WR	WR	WR	NA	0.031	0.048	0.122	0.067	0.000	0.000	0.000
31	0.010	NA	WR	WR	NA	0.029	NA	0.124	NA	0.000	0.000	NA

Partial Data Partial Data No Data No Data Partial Data Partial Data

Flow Rate

Average	0.019	0.018	0.022			0.036	0.102	0.163	0.092	0.063	0.009	0.006
Maximum	0.091	0.030	0.029			0.187	0.404	1.041	0.151	0.478	0.184	0.114
Minimum	0.004	0.010	0.020			0.008	0.006	0.035	0.024	0.000	0.000	0.000

Partial Data Partial Data No Data No Data Partial Data Partial Data

Discharge

Cubic Feet	51298	9109	7774			67770	264888	436156	238638	169548	23918	14832
Gallons	383738	68142	58157			506952	1981483	3262671	1785134	1268307	178917	110950
Acre-Feet	1.18	0.21	0.18			1.56	6.08	10.01	5.48	3.89	0.55	0.34

Partial Data Partial Data No Data No Data Partial Data Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.060
GPM	27.1
Cubic Feet	1283928
Gallons	9604450
Acre-Feet	29.47

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
 BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations
 and electronic record at adjacent or comparable gages

A.1.40 SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B

Table A-40. WY01 Discharge Summary for SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0004	0.0000	0.0000	0.0000	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0137	0.0000	0.0000	0.0000	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0391	0.0000	0.0000	0.0000	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0843	0.0000	0.0000	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0012	0.0000	0.0000	0.0000	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0003
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0160	0.0000
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0124	0.0000	0.0000	0.0000	0.0000
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0184	0.0000	0.0000	0.0000	0.0000
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0029	0.0000	0.0000	0.0009	0.0000
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0694	0.0000
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0001	0.0010
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0010	0.0000	0.0000	0.0000
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0046	0.0000	0.0000	0.0000
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0005	0.0077	0.0000	0.0000	0.0000
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0329	0.0000	0.0000	0.0000	0.0000
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0121	0.0000	0.0000	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0001	0.0000	0.0000	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	No Data	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average								0.003	0.005	0.000	0.002	0.001	0.000
Maximum								0.033	0.084	0.000	0.069	0.016	0.000
Minimum								0.000	0.000	0.000	0.000	0.000	0.000

No Data No Data No Data No Data No Data No Data Partial Data

Discharge

Cubic Feet								6855	13127	0	6087	1468	30
Gallons								51277	98196	0	45536	10984	228
Acre-Feet								0.16	0.30	0.00	0.14	0.03	0.00

No Data No Data No Data No Data No Data No Data Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.0018
GPM	0.80
Cubic Feet	27568
Gallons	206220
Acre-Feet	0.633

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.1.41 SW120: Ditch Along PA Perimeter Road North of Solar Pond 207A

Table A-41. WY01 Discharge Summary for SW120: PA Perimeter Road Ditch North of Solar Pond 207A.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.002	0.0000	0.0000	0.0124	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.006	0.0000	0.0000	0.0587	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0003	0.003	0.0000	0.0000	0.1059	0.0000	0.0000	0.0000	0.0000
5	0.0032	0.0000	0.0000	0.0024	0.005	0.0000	0.0000	0.2314	0.0000	0.0000	0.0000	0.0000
6	0.0065	0.0000	0.0000	0.0017	0.001	0.0000	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000
7	0.0028	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0077	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0045	0.0000	0.0000	0.0000	0.0001
9	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0028	0.0000	0.0000	0.0000	0.0029
10	0.0000	0.0000	0.0000	0.0000	0.000	0.0085	0.0000	0.0016	0.0000	0.0000	0.0001	0.0000
11	0.0003	0.0000	0.0000	0.0000	0.001	0.0168	0.0837	0.0003	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.004	0.0163	0.0846	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.005	0.0123	0.0291	0.0000	0.0006	0.0356	0.0043	0.0009
14	0.0000	0.0000	0.0000	0.0000	0.001	0.0054	0.0098	0.0000	0.0003	0.1149	0.0000	0.0104
15	0.0000	0.0000	0.0000	0.0000	0.004	0.0009	0.0042	0.0000	0.0000	0.0029	0.0252	0.0018
16	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0008	0.0000	0.0000	0.0000	0.0023	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.004	0.0031	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.006	0.0030	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.012	0.0000	0.0000	0.0095	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.008	0.0000	0.0000	0.0069	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.004	0.0000	0.0034	0.0270	0.0000	0.0000	0.0000	0.0000
22	0.0146	0.0000	0.0000	0.0000	0.003	0.0000	0.0867	0.0012	0.0000	0.0000	0.0000	0.0000
23	0.0028	0.0000	0.0000	0.0000	0.005	0.0000	0.0736	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.003	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.0027	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.000	0.0129	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.000	0.0093	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.000	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0044	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.001	0.000	0.000	0.000	0.003	0.003	0.013	0.016	0.000	0.005	0.004	0.003
Maximum	0.015	0.000	0.000	0.002	0.012	0.017	0.087	0.231	0.001	0.115	0.088	0.060
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	2613	0	0	384	6438	8328	33662	42021	73	13253	10376	6559
Gallons	19545	0	0	2874	48157	62295	251809	314339	545	99138	77615	49062
Acre-Feet	0.06	0.00	0.00	0.01	0.15	0.19	0.77	0.96	0.00	0.30	0.24	0.15

Annual Summaries for WY01

FT/Sec	0.0039
GPM	1.76
Cubic Feet	123705
Gallons	925378
Acre-Feet	2.840

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.42 SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate

Table A-42. WY01 Discharge Summary for SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.000	0.000	0.062	WR	WR	0.000	0.000	0.000	0.000	0.000	0.088	0.000
2	0.317	0.000	0.000	WR	WR	0.000	0.000	0.000	0.047	0.068	0.000	0.000
3	0.000	0.000	0.000	0.000	WR	0.000	0.147	0.030	0.000	0.000	0.000	0.000
4	0.000	0.048	0.000	0.000	WR	0.000	0.000	0.043	0.000	0.000	0.000	0.000
5	0.000	0.000	0.012	0.000	WR	0.073	0.000	0.745	0.053	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.108	0.000	0.000	0.000	0.000
7	0.002	0.000	0.000	0.000	0.000	0.169	0.000	0.270	0.029	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	WR	0.000	0.000	0.222	0.000	0.000	0.062	0.004
9	0.119	0.078	0.000	0.000	WR	0.000	0.042	0.000	0.026	0.000	0.030	0.000
10	0.005	0.000	0.000	0.000	WR	0.000	0.000	0.000	0.000	0.078	0.176	0.000
11	0.000	0.000	WR	0.000	WR	0.006	0.009	0.000	0.000	BD	0.000	0.119
12	0.000	0.000	WR	0.000	WR	0.003	0.034	0.072	0.030	0.000	0.000	0.000
13	0.000	0.000	WR	0.000	WR	0.000	0.015	0.000	0.000	0.000	0.000	0.000
14	0.053	0.000	WR	0.000	WR	0.000	0.007	0.000	0.000	0.055	0.049	0.000
15	0.000	0.062	0.000	0.000	0.001	0.000	0.000	0.000	0.029	0.000	0.001	0.000
16	0.000	0.078	0.000	0.000	WR	0.000	0.000	0.064	0.000	0.450	0.000	0.000
17	0.038	0.096	0.000	WR	WR	0.000	0.148	0.000	0.000	0.000	0.000	0.000
18	0.000	WR	0.000	WR	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000
19	0.000	0.000	0.000	WR	0.202	0.000	0.217	0.000	0.052	0.000	0.000	0.113
20	0.000	0.152	0.000	WR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.036	0.000	WR	WR	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000
22	0.000	0.000	WR	WR	0.000	0.136	0.029	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	WR	0.000	0.000	0.043	0.116	0.000	0.094	0.000	0.000
24	0.000	0.000	0.000	WR	0.000	0.000	0.003	0.000	0.000	0.044	0.000	0.000
25	0.000	0.000	0.000	WR	0.000	0.000	0.285	0.000	0.065	0.000	0.000	0.000
26	0.000	0.000	WR	WR	0.000	0.001	0.107	0.000	0.000	0.000	0.000	0.000
27	0.068	0.000	WR	WR	0.000	0.000	0.106	0.000	0.000	0.000	0.129	0.000
28	0.000	0.000	0.000	WR	0.000	0.000	0.148	0.000	0.000	0.000	0.000	0.000
29	0.000	0.087	0.000	WR	NA	0.000	0.079	0.000	0.000	0.000	0.000	0.000
30	0.037	0.018	0.000	WR	NA	0.000	0.032	0.127	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	WR	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Partial Data Partial Data Partial Data Partial Data

Partial Data

Flow Rate

Average	0.022	0.021	0.003	0.000	0.014	0.013	0.048	0.058	0.011	0.026	0.017	0.008
Maximum	0.317	0.152	0.062	0.000	0.202	0.169	0.285	0.745	0.065	0.450	0.176	0.119
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Partial Data Partial Data Partial Data Partial Data

Partial Data

Discharge

Cubic Feet	58346	53384	6371	0	17525	33641	125425	155452	28709	68145	46216	20377
Gallons	436461	399341	47658	0	131095	251649	938247	1162865	214758	509760	345722	152430
Acre-Feet	1.34	1.23	0.15	0.00	0.40	0.77	2.88	3.57	0.66	1.56	1.06	0.47

Partial Data Partial Data Partial Data Partial Data

Partial Data

Annual Summaries for WY01

FT ³ /Sec	0.022
GPM	9.8
Cubic Feet	613592
Gallons	4589984
Acre-Feet	14.1

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.43 995POE: WWTP Effluent

Table A-43. WY01 Discharge Summary for 995POE: WWTP Effluent.

Water Year 2001: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.155	0.211	0.265	0.218	0.193	0.168	0.168	0.309	0.171	0.221	0.224	0.170
2	0.234	0.233	0.399	0.172	0.143	0.143	0.257	0.354	0.265	0.213	0.223	0.188
3	0.237	0.171	0.347	0.207	0.138	0.161	0.219	0.384	0.282	0.150	0.197	0.216
4	0.250	0.217	0.366	0.112	0.148	0.148	0.190	0.441	0.316	0.146	0.195	0.272
5	0.296	0.146	0.298	0.135	0.142	0.251	0.250	0.732	0.321	0.314	0.198	0.258
6	0.227	0.161	0.207	0.144	0.154	0.273	0.121	0.570	0.292	0.265	0.284	0.194
7	0.336	0.242	0.125	0.174	0.247	0.196	0.142	0.554	0.200	0.309	0.320	0.157
8	0.222	0.263	0.141	0.179	0.286	0.173	0.153	0.478	0.204	0.307	0.256	0.374
9	0.229	0.203	0.232	0.212	0.238	0.125	0.167	0.371	0.216	0.310	0.309	0.261
10	0.308	0.151	0.107	0.203	0.141	0.137	0.198	0.301	0.282	0.158	0.335	0.291
11	0.264	0.150	0.179	0.216	0.145	0.255	0.201	0.395	0.308	0.274	0.231	0.206
12	0.160	0.193	0.206	0.151	0.208	0.303	0.256	0.297	0.291	0.285	0.302	0.242
13	0.142	0.170	0.233	0.168	0.155	0.189	0.397	0.341	0.335	0.231	0.280	0.195
14	0.158	0.275	0.221	0.140	0.279	0.287	0.399	0.328	0.273	0.344	0.286	0.232
15	0.198	0.192	0.183	0.169	0.192	0.234	0.339	0.452	0.167	0.492	0.286	0.288
16	0.204	0.173	0.146	0.172	0.174	0.134	0.358	0.332	0.202	0.314	0.154	0.273
17	0.202	0.178	0.194	0.179	0.150	0.161	0.394	0.229	0.286	0.299	0.187	0.321
18	0.198	0.206	0.157	0.153	0.140	0.244	0.317	0.287	0.276	0.289	0.220	0.292
19	0.196	0.147	0.253	0.149	0.222	0.226	0.322	0.241	0.318	0.251	0.198	0.314
20	0.139	0.145	0.309	0.210	0.175	0.178	0.207	0.389	0.300	0.296	0.304	0.315
21	0.160	0.141	0.116	0.159	0.187	0.170	0.223	0.378	0.145	0.220	0.256	0.216
22	0.146	0.237	0.106	0.181	0.214	0.172	0.333	0.341	0.183	0.173	0.262	0.227
23	0.207	0.191	0.151	0.198	0.175	0.212	0.429	0.216	0.296	0.312	0.333	0.198
24	0.243	0.151	0.168	0.176	0.140	0.194	0.466	0.284	0.242	0.341	0.164	0.187
25	0.188	0.164	0.220	0.225	0.208	0.175	0.474	0.289	0.321	0.296	0.261	0.271
26	0.149	0.160	0.178	0.221	0.177	0.201	0.296	0.285	0.244	0.179	0.259	0.302
27	0.161	0.130	0.196	0.190	0.198	0.306	0.272	0.276	0.223	0.108	0.284	0.187
28	0.151	0.309	0.144	0.133	0.231	0.293	0.303	0.297	0.282	0.263	0.274	0.177
29	0.107	0.207	0.110	0.138	NA	0.127	0.271	0.310	0.114	0.292	0.197	0.233
30	0.121	0.260	0.126	0.199	NA	0.188	0.348	0.310	0.201	0.384	0.140	0.237
31	0.199	NA	0.138	0.222	NA	0.195	NA	0.304	NA	0.265	0.147	NA

Partial Data Partial Data Partial Data Partial Data

Partial Data

Flow Rate

Average	0.200	0.193	0.201	0.178	0.186	0.201	0.282	0.357	0.252	0.268	0.244	0.243
Maximum	0.336	0.309	0.399	0.225	0.286	0.306	0.474	0.732	0.335	0.492	0.335	0.374
Minimum	0.107	0.130	0.106	0.112	0.138	0.125	0.121	0.216	0.114	0.108	0.140	0.157

Partial Data Partial Data Partial Data Partial Data

Partial Data

Discharge

Cubic Feet	534482	498976	537436	476036	449314	537035	731607	956778	652361	717183	653537	630170
Gallons	3998200	3732600	4020300	3581000	3361100	4017300	5472800	7157200	4880000	5364900	4888800	4714000
Acre-Feet	12.27	11.45	12.34	10.93	10.31	12.33	16.80	21.96	14.98	16.46	15.00	14.47

Partial Data Partial Data Partial Data Partial Data

Partial Data

Annual Summaries for WY01

Ft ³ /Sec	0.234
GPM	105.0
Cubic Feet	7374915
Gallons	55168200
Acre-Feet	169.30

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions

BD: Bad data due to equipment failures

ITALICS: Italic values contain data estimated from field observations
and electronic record at adjacent or comparable gages

A.2 PRECIPITATION DATA

This section includes total daily precipitation tables and hyetographs by precipitation gage and water year. Electronic copies of the precipitation grids are included in the Appendix Tables directory on the CD-ROM disc. The grids are given in a single Microsoft Excel file. Each file contains separate worksheets for each precipitation gage.

A.2.1 PG51: Site Meteorology Tower

Precipitation data collected by the Automated Surface-Water Monitoring Program are from a secondary rain gage at the base of the tower. The official Met Tower data are collected by the Air Programs Group.

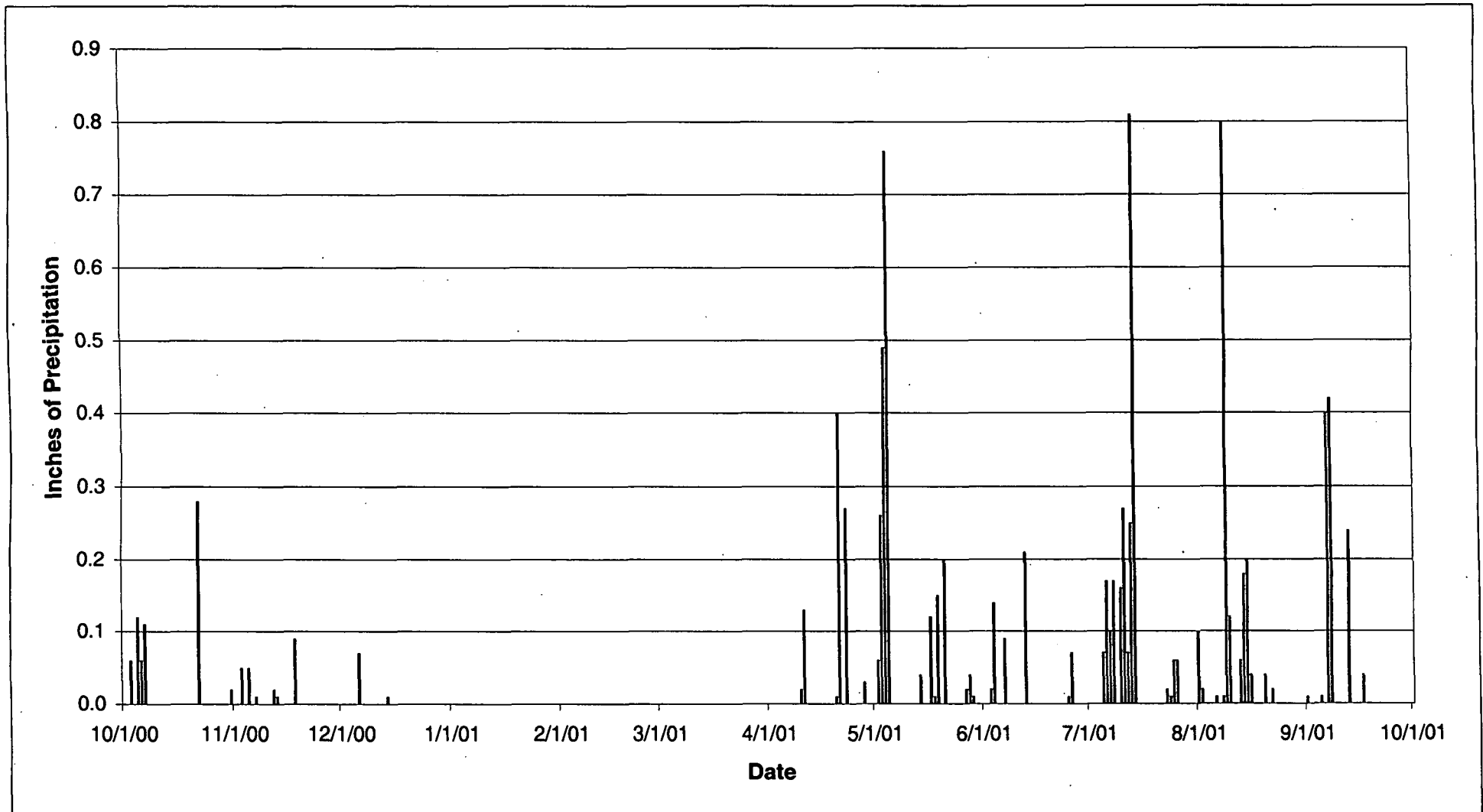


Figure A-1. WY01 Annual Hyetograph at PG51: Site Meteorology Tower.

Table A-44. WY01 Precipitation Summary for PG51: Site Meteorology Tower.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.00	0.00	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.10	0.01
2	0.00	0.00	0.00	No Data	No Data	No Data	0.00	0.06	0.00	0.00	0.02	0.00
3	0.06	0.05	0.00	No Data	No Data	No Data	0.00	0.26	0.02	0.00	0.00	0.00
4	0.00	0.00	0.00	No Data	No Data	No Data	0.00	0.49	0.14	0.00	0.00	0.00
5	0.12	0.05	0.00	No Data	No Data	No Data	0.00	0.76	0.00	0.07	0.00	0.01
6	0.06	0.00	0.07	No Data	No Data	No Data	0.00	0.00	0.00	0.17	0.01	0.00
7	0.11	0.01	0.00	No Data	No Data	No Data	0.00	0.00	0.09	0.10	0.00	0.40
8	0.00	0.00	0.00	No Data	No Data	No Data	0.00	0.00	0.00	0.17	0.01	0.42
9	0.00	0.00	0.00	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.80	0.00
10	0.00	0.00	0.00	No Data	No Data	No Data	0.02	0.00	0.00	0.16	0.12	0.00
11	0.00	0.00	0.00	No Data	No Data	No Data	0.13	0.00	0.00	0.27	0.00	0.00
12	0.00	0.02	0.00	No Data	No Data	No Data	0.00	0.00	0.00	0.07	0.00	0.00
13	0.00	0.01	0.00	No Data	No Data	No Data	0.00	0.00	0.21	0.25	0.06	0.24
14	0.00	0.00	0.01	No Data	No Data	No Data	0.00	0.04	0.00	0.81	0.18	0.00
15	0.00	0.00	0.00	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.20	0.00
16	0.00	0.00	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.04	0.00
17	0.00	0.00	No Data	No Data	No Data	No Data	0.00	0.12	0.00	0.00	0.00	0.04
18	0.00	0.09	No Data	No Data	No Data	No Data	0.00	0.01	0.00	0.00	0.00	0.00
19	0.00	0.00	No Data	No Data	No Data	No Data	0.00	0.15	0.00	0.00	0.00	0.00
20	0.00	0.00	No Data	No Data	No Data	No Data	0.01	0.00	0.00	0.00	0.04	0.00
21	0.00	0.00	No Data	No Data	No Data	No Data	0.40	0.20	0.00	0.00	0.00	0.00
22	0.28	0.00	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.02	0.00
23	0.00	0.00	No Data	No Data	No Data	No Data	0.27	0.00	0.00	0.02	0.00	0.00
24	0.00	0.00	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.01	0.00	0.00
25	0.00	0.00	No Data	No Data	No Data	No Data	0.00	0.00	0.01	0.06	0.00	0.00
26	0.00	0.00	No Data	No Data	No Data	No Data	0.00	0.00	0.07	0.06	0.00	0.00
27	0.00	0.00	No Data	No Data	No Data	No Data	0.00	0.02	0.00	0.00	0.00	0.00
28	0.00	0.00	No Data	No Data	No Data	No Data	0.03	0.04	0.00	0.00	0.00	0.00
29	0.00	0.00	No Data	No Data	NA	No Data	0.00	0.01	0.00	0.00	0.00	0.00
30	0.00	0.00	No Data	No Data	NA	No Data	0.00	0.00	0.00	0.00	0.00	0.00
31	0.02	NA	No Data	No Data	NA	No Data	NA	0.00	NA	0.00	0.00	NA

Partial Data No Data No Data No Data

Precipitation

Monthly Total	0.65	0.23	0.08	0.00	0.00	0.00	0.86	2.16	0.54	2.22	1.60	1.12
Daily Maximum	0.28	0.09	0.07	0.00	0.00	0.00	0.40	0.76	0.21	0.81	0.80	0.42

Partial Data No Data No Data No Data

Annual Summaries for WY01

 Total Inches **9.46**
 Partial Data

KEY: No Data: Bad or missing data due to equipment failures

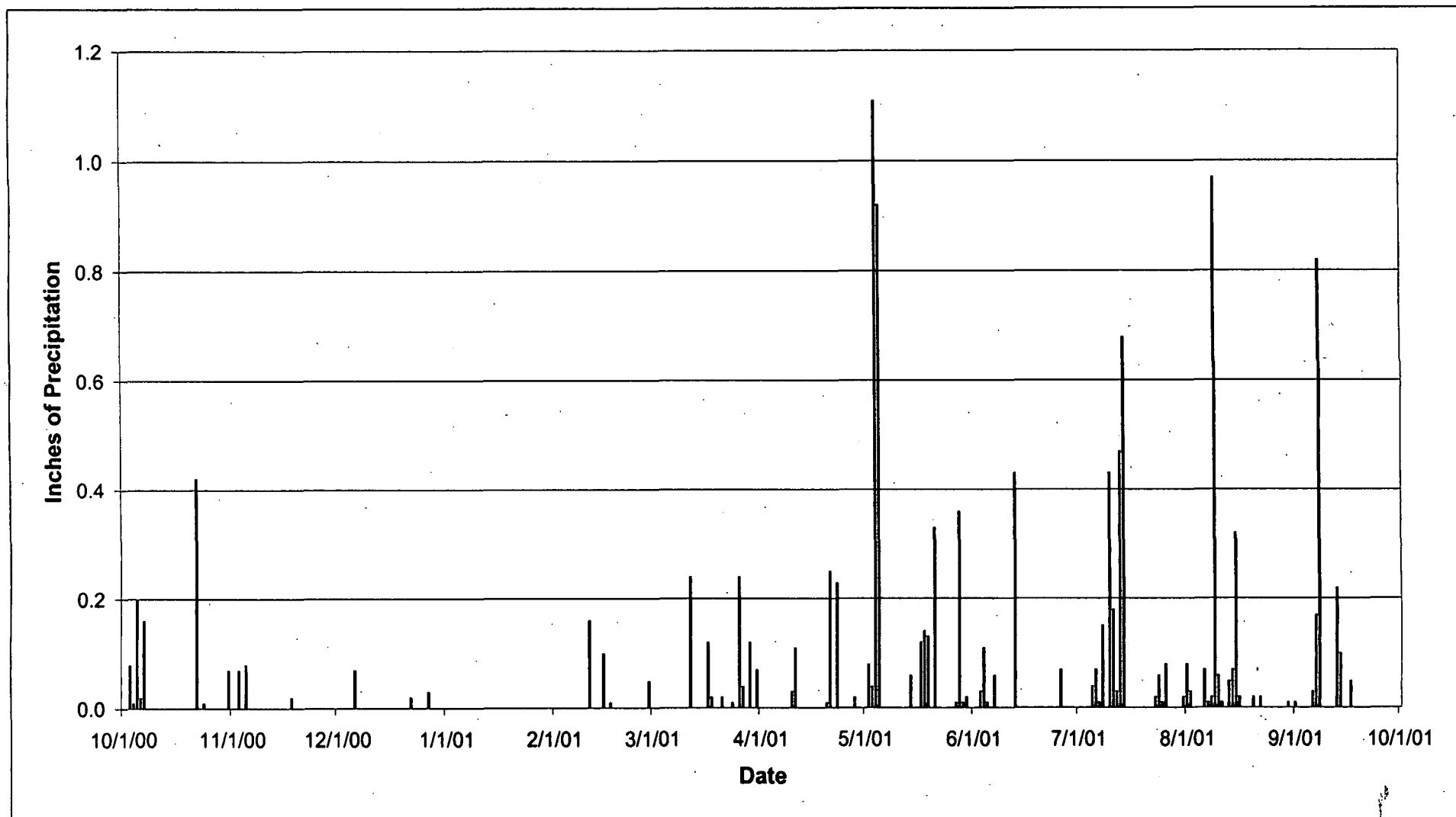
A.2.2 PG52: Gaging Station SW022**Figure A-2. WY01 Annual Hyetograph at PG52: Gaging Station SW022.**

Table A-45. WY01 Precipitation Summary for PG52: Gaging Station SW022.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.03	0.00
3	0.08	0.07	0.00	0.00	0.00	0.00	0.00	0.04	0.03	0.00	0.00	0.00
4	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.11	0.11	0.00	0.00	0.00
5	0.20	0.08	0.00	0.00	0.00	0.00	0.00	0.92	0.01	0.04	0.00	0.00
6	0.02	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.03
7	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01	0.01	0.17
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.02	0.82
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.43	0.06	0.00
11	0.00	0.00	0.00	0.00	0.16	0.00	0.11	0.00	0.00	0.18	0.01	0.00
12	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.03	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.47	0.05	0.22
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.68	0.07	0.10
15	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.32	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
17	0.00	0.00	0.00	0.00	0.01	0.12	0.00	0.12	0.00	0.00	0.00	0.05
18	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.14	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00
21	0.00	0.00	0.00	0.00	0.00	0.02	0.25	0.33	0.00	0.00	0.00	0.00
22	0.42	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.02	0.00	0.00
24	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.07	0.08	0.00	0.00
27	0.00	0.00	0.03	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.05	0.00	0.02	0.36	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	NA	0.12	0.00	0.01	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.02	0.00	0.00	0.01	0.00
31	0.07	NA	0.00	0.00	NA	0.07	NA	0.00	NA	0.02	0.00	NA

Precipitation

Monthly Total	0.97	0.17	0.12	0.00	0.32	0.88	0.65	3.33	0.71	2.25	1.76	1.40
Daily Maximum	0.42	0.08	0.07	0.00	0.16	0.24	0.25	1.11	0.43	0.68	0.97	0.82

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY01

Total Inches 12.56

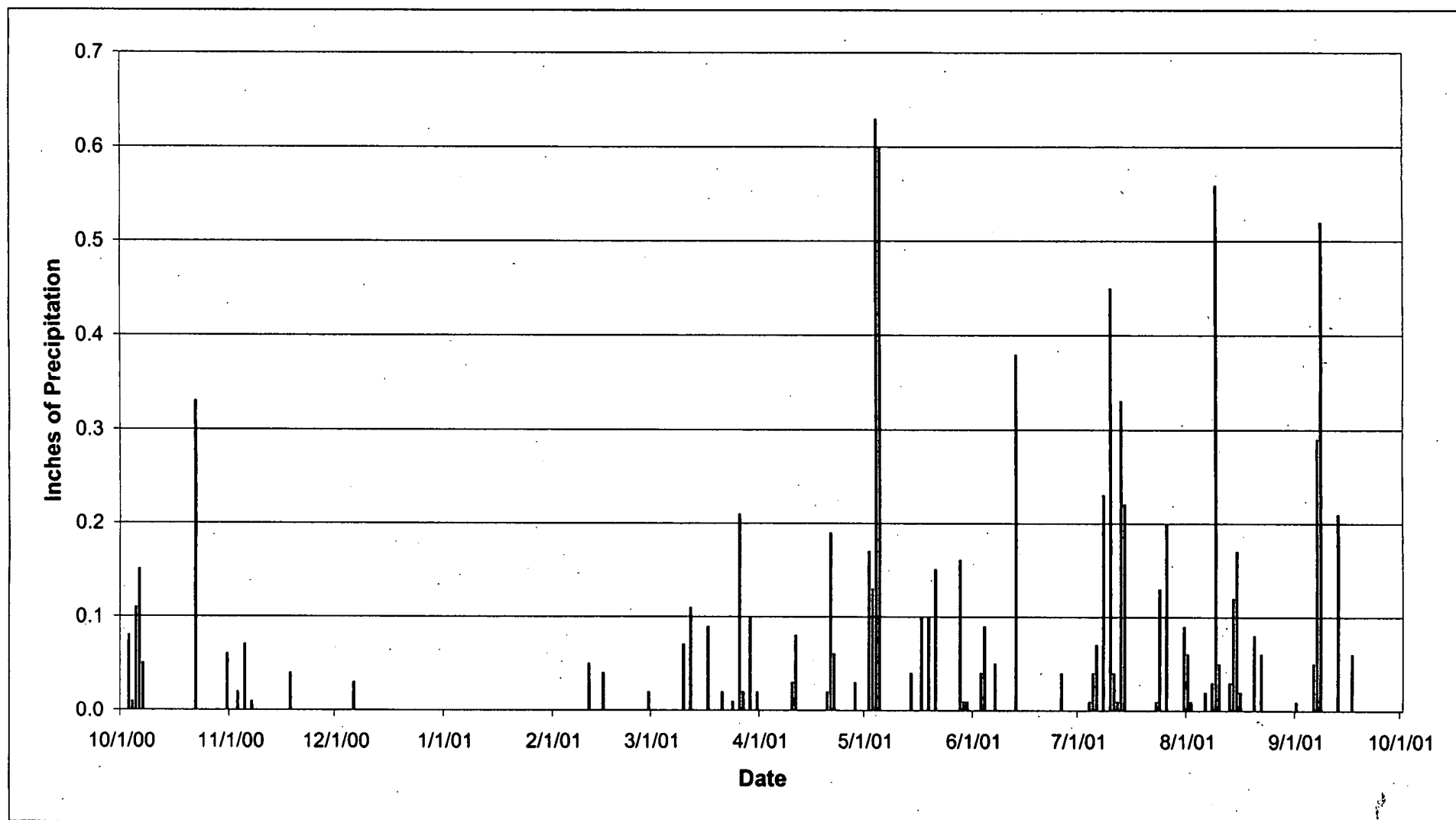
A.2.3 PG55: Telemetry Repeater Node RPT2**Figure A-3. WY01 Annual Hyetograph at PG55: Telemetry Repeater Node RPT2.**

Table A-46. WY01 Precipitation Summary for PG55: Telemetry Repeater Node RPT2.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01
2	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.17	0.00	0.00	0.01	0.00
3	0.08	0.02	0.00	No Data	0.00	0.00	0.00	0.13	0.04	0.00	0.00	0.00
4	0.01	0.00	0.00	No Data	0.00	0.00	0.00	0.63	0.09	0.01	0.00	0.00
5	0.11	0.07	0.00	No Data	0.00	0.00	0.00	0.60	0.00	0.04	0.00	0.00
6	0.15	0.00	0.03	No Data	0.00	0.00	0.00	0.00	0.00	0.07	0.02	0.05
7	0.05	0.01	0.00	No Data	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.29
8	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.00	0.23	0.03	0.52
9	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00
10	0.00	0.00	0.00	No Data	0.00	0.07	0.03	0.00	0.00	0.45	0.05	0.00
11	0.00	0.00	0.00	No Data	0.05	0.00	0.08	0.00	0.00	0.04	0.00	0.00
12	0.00	0.00	0.00	No Data	0.00	0.11	0.00	0.00	0.00	0.01	0.00	0.00
13	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.38	0.33	0.03	0.21
14	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.04	0.00	0.22	0.12	0.00
15	0.00	0.00	0.00	No Data	0.04	0.00	0.00	0.00	0.00	0.00	0.17	0.00
16	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
17	0.00	0.00	No Data	No Data	0.00	0.09	0.00	0.10	0.00	0.00	0.00	0.06
18	0.00	0.04	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
20	0.00	0.00	No Data	No Data	0.00	0.00	0.02	0.00	0.00	0.00	0.08	0.00
21	0.00	0.00	No Data	No Data	0.00	0.02	0.19	0.15	0.00	0.00	0.00	0.00
22	0.33	0.00	No Data	No Data	0.00	0.00	0.06	0.00	0.00	0.00	0.06	0.00
23	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
24	0.00	0.00	No Data	No Data	0.00	0.01	0.00	0.00	0.00	0.13	0.00	0.00
25	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	No Data	No Data	0.00	0.21	0.00	0.00	0.04	0.20	0.00	0.00
27	0.00	0.00	No Data	No Data	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	No Data	No Data	0.02	0.00	0.03	0.16	0.00	0.00	0.00	0.00
29	0.00	0.00	No Data	No Data	NA	0.10	0.00	0.01	0.00	0.00	0.00	0.00
30	0.00	0.00	No Data	No Data	NA	0.00	0.00	0.01	0.00	0.00	0.00	0.00
31	0.06	NA	No Data	No Data	NA	0.02	NA	0.00	NA	0.09	0.00	NA

Partial Data No Data

Precipitation

Monthly Total	0.79	0.14	0.03	0.00	0.11	0.65	0.41	2.10	0.60	1.83	1.21	1.14
Daily Maximum	0.33	0.07	0.03	0.00	0.05	0.21	0.19	0.63	0.38	0.45	0.56	0.52

Partial Data No Data

Annual Summaries for WY01

 Total Inches **9.01**
 Partial Data

KEY: No Data: Bad or missing data due to equipment failures

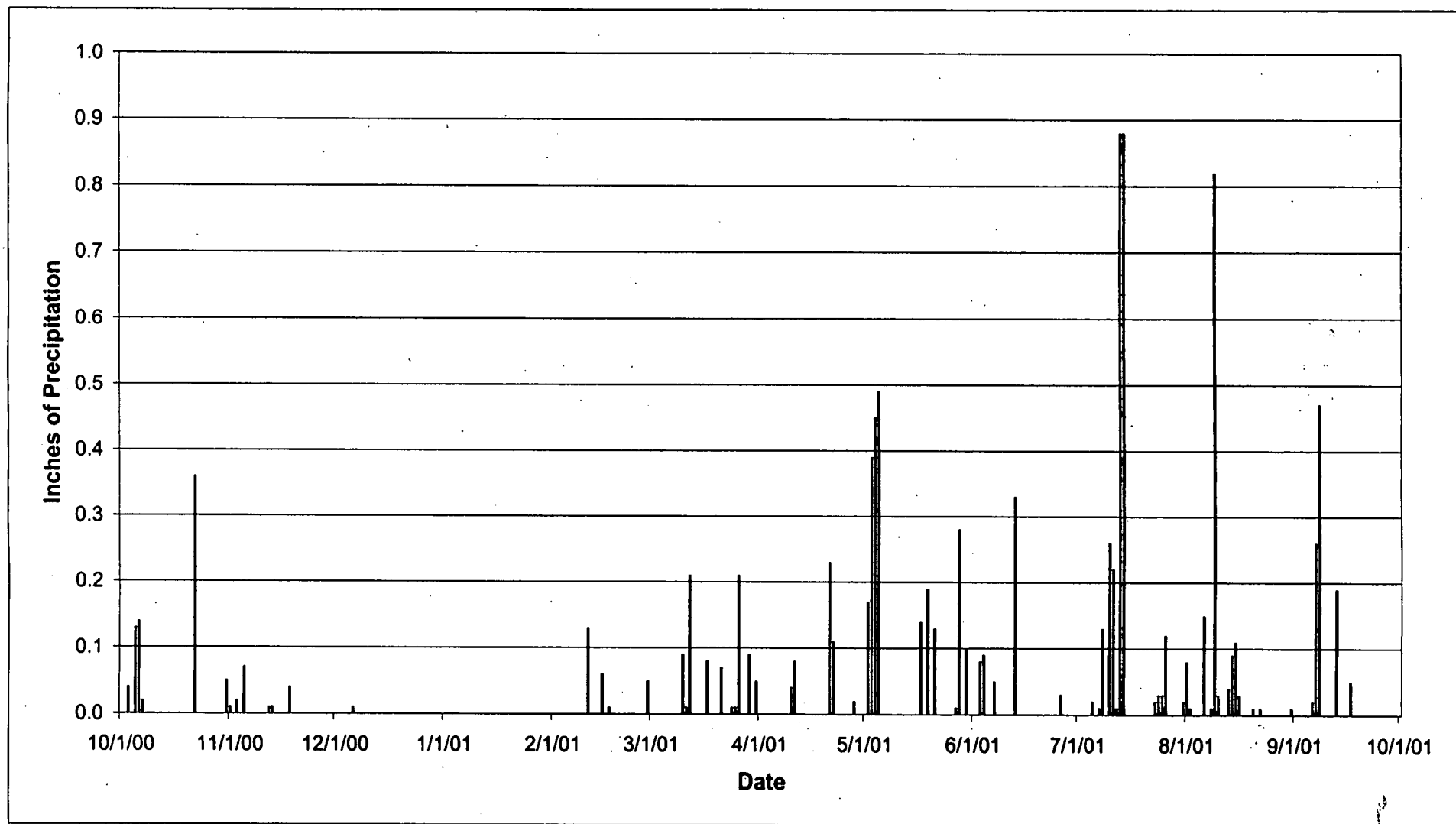
A.2.4 PG56: Telemetry Repeater Node RPT3**Figure A-4. WY01 Annual Hyetograph at PG56: Telemetry Repeater Node RPT3.**

Table A-47. WY01 Precipitation Summary for PG56: Telemetry Repeater Node RPT3.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.01	0.00	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00
2	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.17	0.00	0.00	0.01	0.00
3	0.04	0.02	0.00	No Data	0.00	0.00	0.00	0.39	0.08	0.00	0.00	0.00
4	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.45	0.09	0.00	0.00	0.00
5	0.13	0.07	0.00	No Data	0.00	0.00	0.00	0.49	0.00	0.02	0.00	0.00
6	0.14	0.00	0.01	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.02
7	0.02	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.05	0.01	0.00	0.26
8	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.00	0.13	0.01	0.47
9	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00
10	0.00	0.00	0.00	No Data	0.00	0.09	0.04	0.00	0.00	0.26	0.03	0.00
11	0.00	0.00	0.00	No Data	0.13	0.01	0.08	0.00	0.00	0.22	0.00	0.00
12	0.00	0.01	0.00	No Data	0.00	0.21	0.00	0.00	0.00	0.01	0.00	0.00
13	0.00	0.01	0.00	No Data	0.00	0.00	0.00	0.00	0.33	0.88	0.04	0.19
14	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.00	0.88	0.09	0.00
15	0.00	0.00	0.00	No Data	0.06	0.00	0.00	0.00	0.00	0.00	0.11	0.00
16	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
17	0.00	0.00	No Data	No Data	0.01	0.08	0.00	0.14	0.00	0.00	0.00	0.05
18	0.00	0.04	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
20	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
21	0.00	0.00	No Data	No Data	0.00	0.07	0.23	0.13	0.00	0.00	0.00	0.00
22	0.36	0.00	No Data	No Data	0.00	0.00	0.11	0.00	0.00	0.00	0.01	0.00
23	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
24	0.00	0.00	No Data	No Data	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.00
25	0.00	0.00	No Data	No Data	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.00
26	0.00	0.00	No Data	No Data	0.00	0.21	0.00	0.00	0.03	0.12	0.00	0.00
27	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
28	0.00	0.00	No Data	No Data	0.05	0.00	0.02	0.28	0.00	0.00	0.00	0.00
29	0.00	0.00	No Data	No Data	NA	0.09	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	No Data	No Data	NA	0.00	0.00	0.10	0.00	0.00	0.00	0.00
31	0.05	NA	No Data	No Data	NA	0.05	NA	0.00	NA	0.02	0.01	NA

Partial Data No Data

Precipitation

Monthly Total	0.74	0.16	0.01	0.00	0.25	0.83	0.48	2.35	0.58	2.63	1.40	0.99
Daily Maximum	0.36	0.07	0.01	0.00	0.13	0.21	0.23	0.49	0.33	0.88	0.82	0.47

Partial Data No Data

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY01

Total Inches 10.42

Partial Data

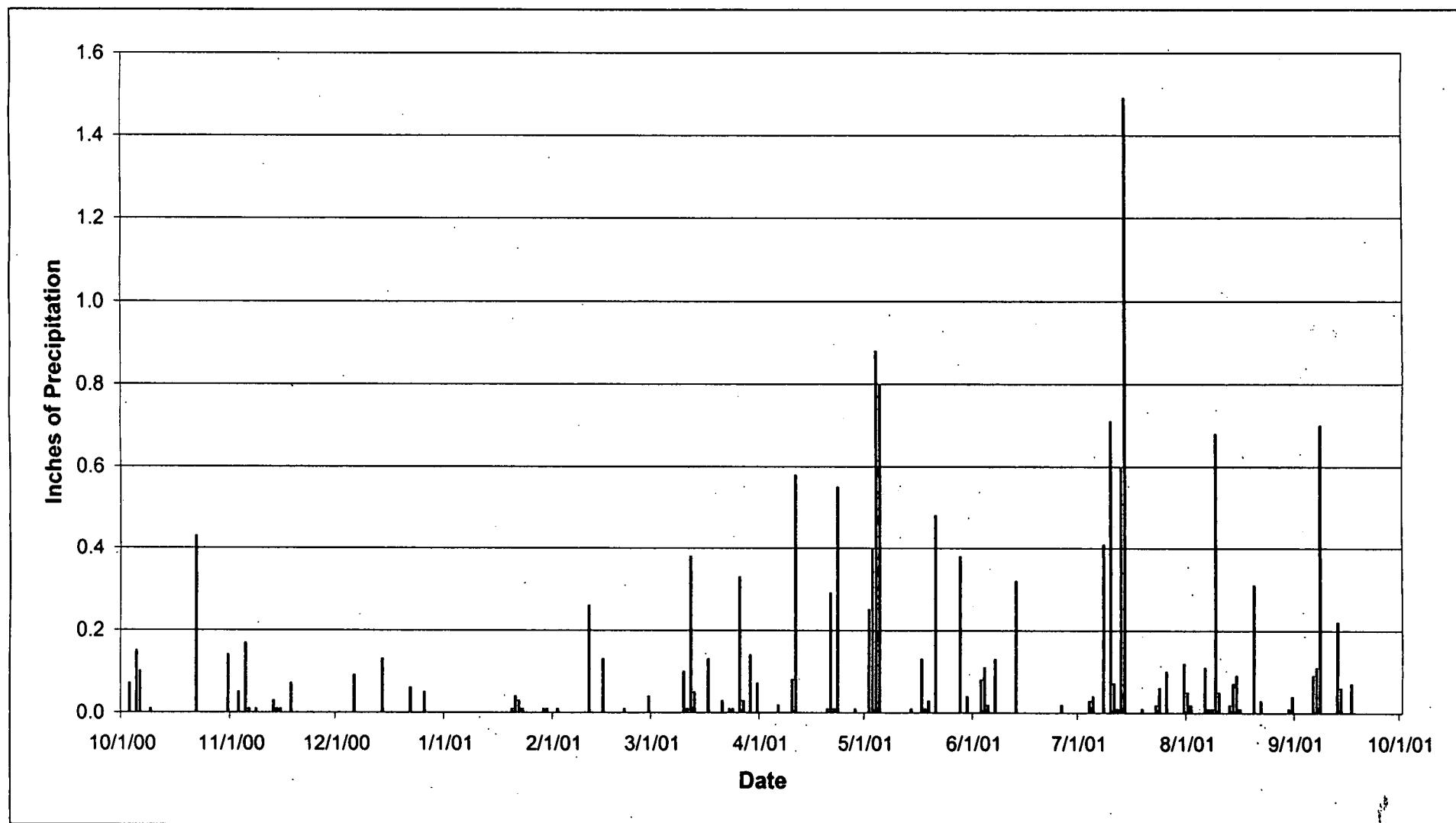
A.2.5 PG58: Gaging Station GS01**Figure A-5. WY01 Annual Hyetograph at PG58: Gaging Station GS01.**

Table A-48. WY01 Precipitation Summary for PG58: Gaging Station GS01.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
2	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.25	0.00	0.00	0.02	0.00
3	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.40	0.08	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.11	0.03	0.00	0.00
5	0.15	0.17	0.00	0.00	0.00	0.00	0.00	0.80	0.02	0.04	0.00	0.00
6	0.10	0.01	0.09	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.11	0.09
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.01	0.11
8	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.01	0.70
9	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00
10	0.00	0.00	0.00	0.00	0.00	0.10	0.08	0.00	0.00	0.71	0.05	0.00
11	0.00	0.00	0.00	0.00	0.26	0.01	0.58	0.00	0.00	0.07	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.01	0.00	0.00
13	0.00	0.03	0.00	0.00	0.00	0.05	0.00	0.00	0.32	0.60	0.02	0.22
14	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.01	0.00	1.49	0.07	0.06
15	0.00	0.01	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.09	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
17	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.00	0.00	0.07
18	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00
20	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.31	0.00
21	0.00	0.00	0.00	0.04	0.01	0.03	0.29	0.48	0.00	0.00	0.00	0.00
22	0.43	0.00	0.06	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00
23	0.00	0.00	0.00	0.01	0.00	0.01	0.55	0.00	0.00	0.02	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.05	0.00	0.00	0.33	0.00	0.00	0.02	0.10	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.04	0.00	0.01	0.38	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.01	NA	0.14	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.01	NA	0.00	0.00	0.04	0.00	0.00	0.01	0.00
31	0.14	NA	0.00	0.00	NA	0.07	NA	0.00	NA	0.12	0.04	NA

Precipitation

Monthly Total	0.90	0.36	0.33	0.11	0.45	1.29	1.55	3.41	0.68	3.67	1.51	1.25
Daily Maximum	0.43	0.17	0.13	0.04	0.26	0.38	0.58	0.88	0.32	1.49	0.68	0.70

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY01

Total Inches 15.51

A.2.6 PG59: Gaging Station GS03

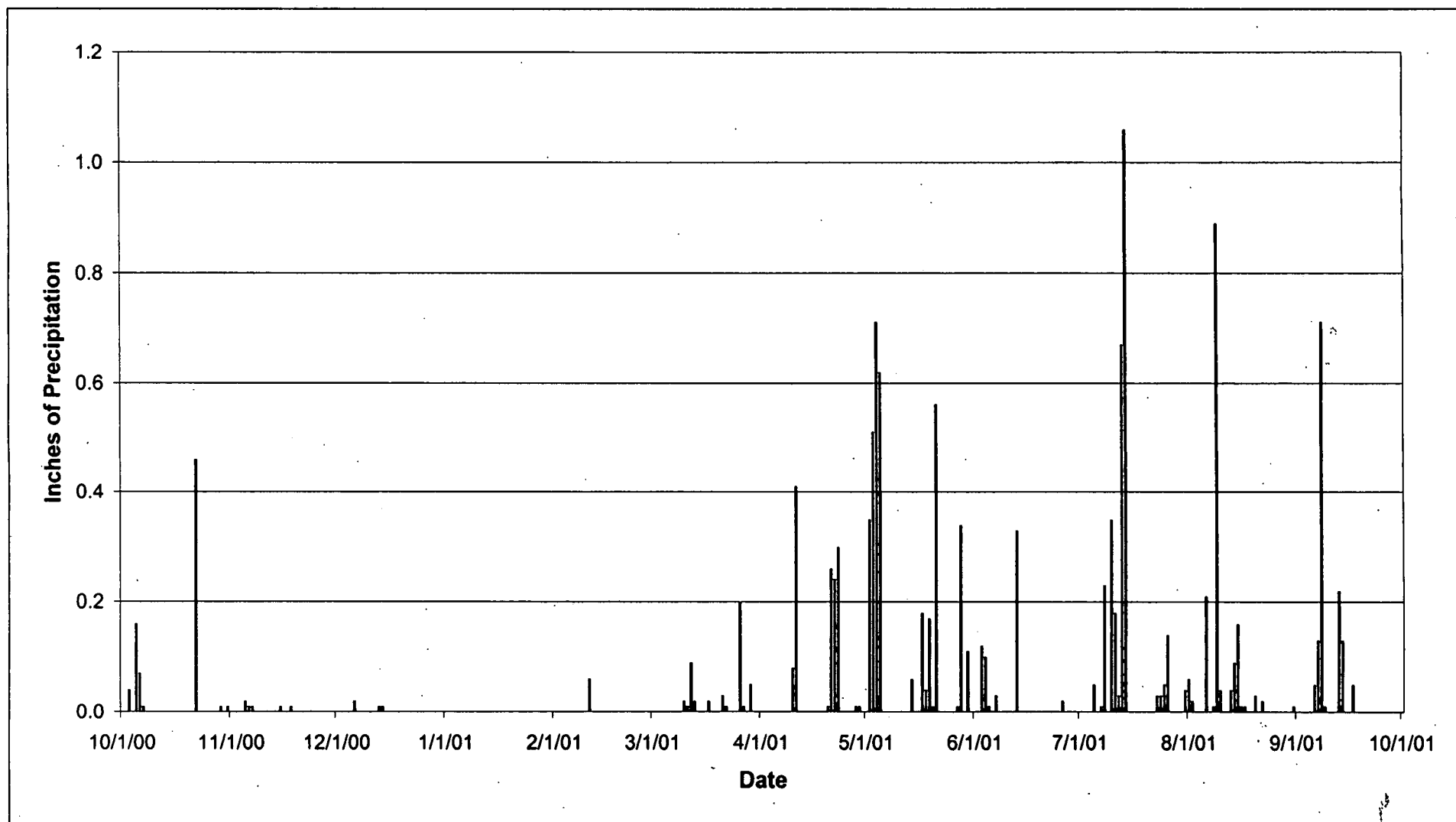


Figure A-6. WY01 Annual Hyetograph at PG59: Gaging Station GS03.

Table A-49. WY01 Precipitation Summary for PG59: Gaging Station GS03.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.02	0.00
3	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.12	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.10	0.00	0.00	0.00
5	0.16	0.02	0.00	0.00	0.00	0.00	0.00	0.82	0.01	0.05	0.00	0.00
6	0.07	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.05
7	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.13
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.01	0.71
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.01
10	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.00	0.00	0.35	0.04	0.00
11	0.00	0.00	0.00	0.00	0.06	0.01	0.41	0.00	0.00	0.18	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.03	0.00	0.00
13	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.33	0.67	0.04	0.22
14	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.06	0.00	1.06	0.09	0.13
15	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
17	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.18	0.00	0.00	0.01	0.05
18	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.03	0.00
21	0.00	0.00	0.00	0.00	0.00	0.03	0.26	0.56	0.00	0.00	0.00	0.00
22	0.46	0.00	0.00	0.00	0.00	0.01	0.24	0.00	0.00	0.00	0.02	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.03	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.02	0.14	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.34	0.00	0.00	0.00	0.00
29	0.01	0.00	0.00	0.00	NA	0.05	0.01	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.11	0.00	0.00	0.00	0.00
31	0.01	NA	0.00	0.00	NA	0.00	NA	0.00	NA	0.04	0.01	NA

Precipitation

Monthly Total	0.76	0.06	0.04	0.00	0.06	0.46	1.32	3.67	0.61	2.87	1.60	1.30
Daily Maximum	0.46	0.02	0.02	0.00	0.06	0.20	0.41	0.71	0.33	1.06	0.89	0.71

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY01

Total Inches 12.75

A.2.7 PG60: Gaging Station GS04

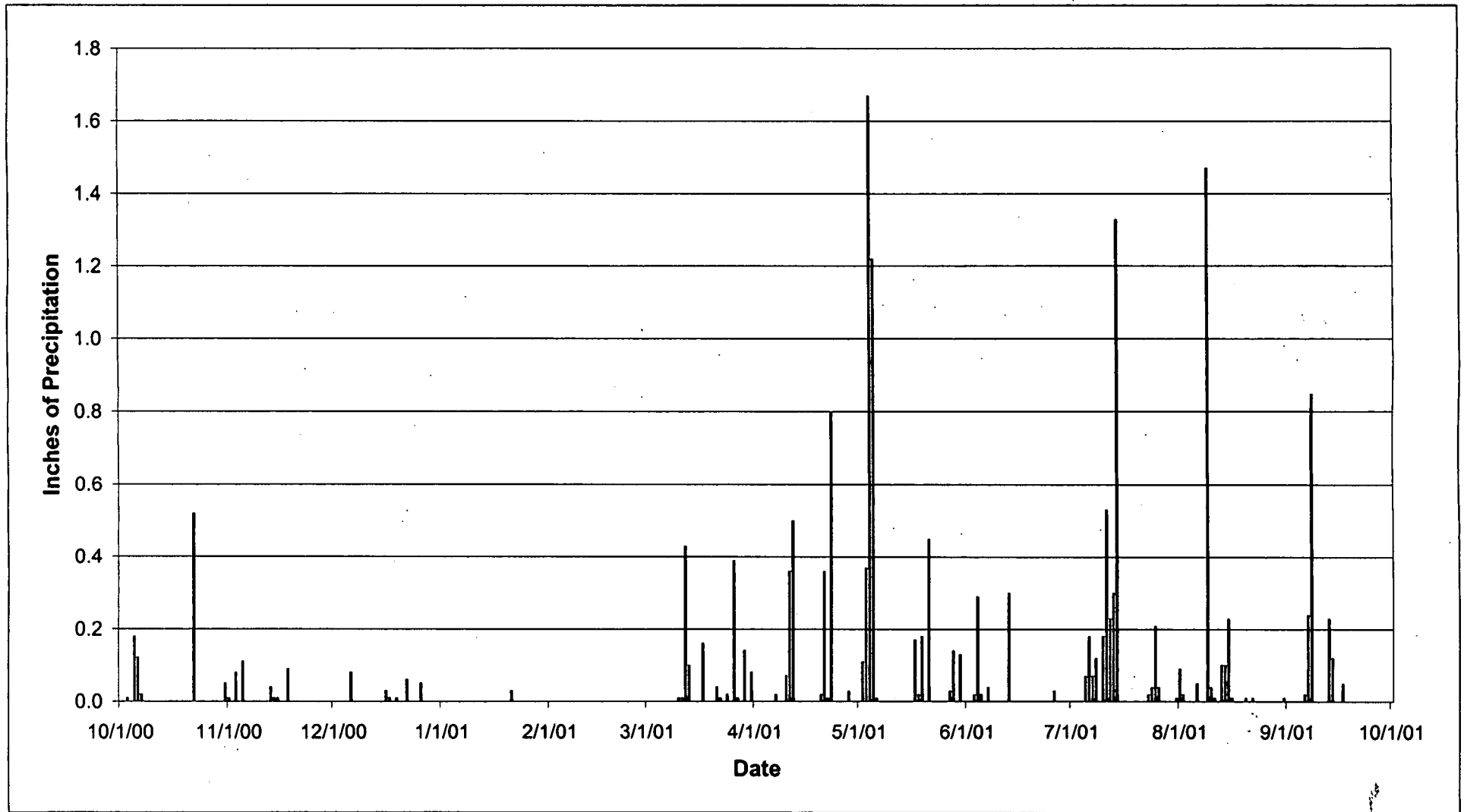


Figure A-7. WY01 Annual Hyetograph at PG60: Gaging Station GS04.

Table A-50. WY01 Precipitation Summary for PG60: Gaging Station GS04.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.01	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.09	0.00
2	0.00	0.00	0.00	0.00	No Data	No Data	0.00	0.11	0.00	0.00	0.02	0.00
3	0.01	0.08	0.00	0.00	No Data	No Data	0.00	0.37	0.02	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	No Data	No Data	0.00	1.67	0.29	0.00	0.00	0.00
5	0.18	0.11	0.00	0.00	0.00	No Data	0.00	1.22	0.02	0.07	0.00	0.00
6	0.12	0.00	0.08	0.00	0.00	No Data	0.00	0.01	0.00	0.18	0.05	0.02
7	0.02	0.00	0.00	0.00	No Data	No Data	0.02	0.00	0.04	0.07	0.00	0.24
8	0.00	0.00	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.12	0.00	0.85
9	0.00	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.00	0.00	1.47	0.00
10	0.00	0.00	0.00	0.00	No Data	0.01	0.07	0.00	0.00	0.18	0.04	0.00
11	0.00	0.00	0.00	0.00	No Data	0.01	0.36	0.00	0.00	0.53	0.01	0.00
12	0.00	0.00	No Data	No Data	No Data	0.43	0.50	0.00	0.00	0.23	0.00	0.00
13	0.00	0.04	No Data	No Data	No Data	0.10	0.00	0.00	0.30	0.30	0.10	0.23
14	0.00	0.01	No Data	No Data	No Data	0.00	0.00	0.00	0.00	1.33	0.10	0.12
15	0.00	0.01	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.23	0.00
16	0.00	0.00	0.03	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.01	0.00
17	0.00	0.00	0.01	No Data	No Data	0.16	0.00	0.17	0.00	0.00	0.00	0.05
18	0.00	0.09	0.00	No Data	No Data	0.00	0.00	0.02	0.00	0.00	0.00	0.00
19	0.00	0.00	0.01	No Data	No Data	0.00	0.00	0.18	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	No Data	0.00	0.02	0.00	0.00	0.00	0.01	0.00
21	0.00	0.00	0.00	0.03	No Data	0.04	0.36	0.45	0.00	0.00	0.00	0.00
22	0.52	0.00	0.06	No Data	No Data	0.01	0.01	0.00	0.00	0.00	0.01	0.00
23	0.00	0.00	0.00	No Data	No Data	0.00	0.80	0.00	0.00	0.02	0.00	0.00
24	0.00	0.00	0.00	No Data	No Data	0.02	0.00	0.00	0.00	0.04	0.00	0.00
25	0.00	0.00	0.00	No Data	No Data	0.00	0.00	0.00	0.00	0.21	0.00	0.00
26	0.00	0.00	0.05	No Data	No Data	0.39	0.00	0.00	0.03	0.04	0.00	0.00
27	0.00	0.00	0.00	No Data	No Data	0.01	0.00	0.03	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	No Data	No Data	0.00	0.03	0.14	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	No Data	NA	0.14	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	No Data	NA	0.00	0.00	0.13	0.00	0.00	0.00	0.00
31	0.05	NA	0.00	No Data	NA	0.08	NA	0.00	NA	0.01	0.01	NA

Partial Data Partial Data Partial Data Partial Data

Precipitation

Monthly Total	0.90	0.35	0.24	0.03	0.00	1.40	2.17	4.50	0.70	3.33	2.15	1.51
Daily Maximum	0.52	0.11	0.08	0.03	0.00	0.43	0.80	1.67	0.30	1.33	1.47	0.85

Partial Data Partial Data Partial Data Partial Data

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY01

 Total Inches **17.28**
 Partial Data

A.2.8 PG61: Gaging Station GS05

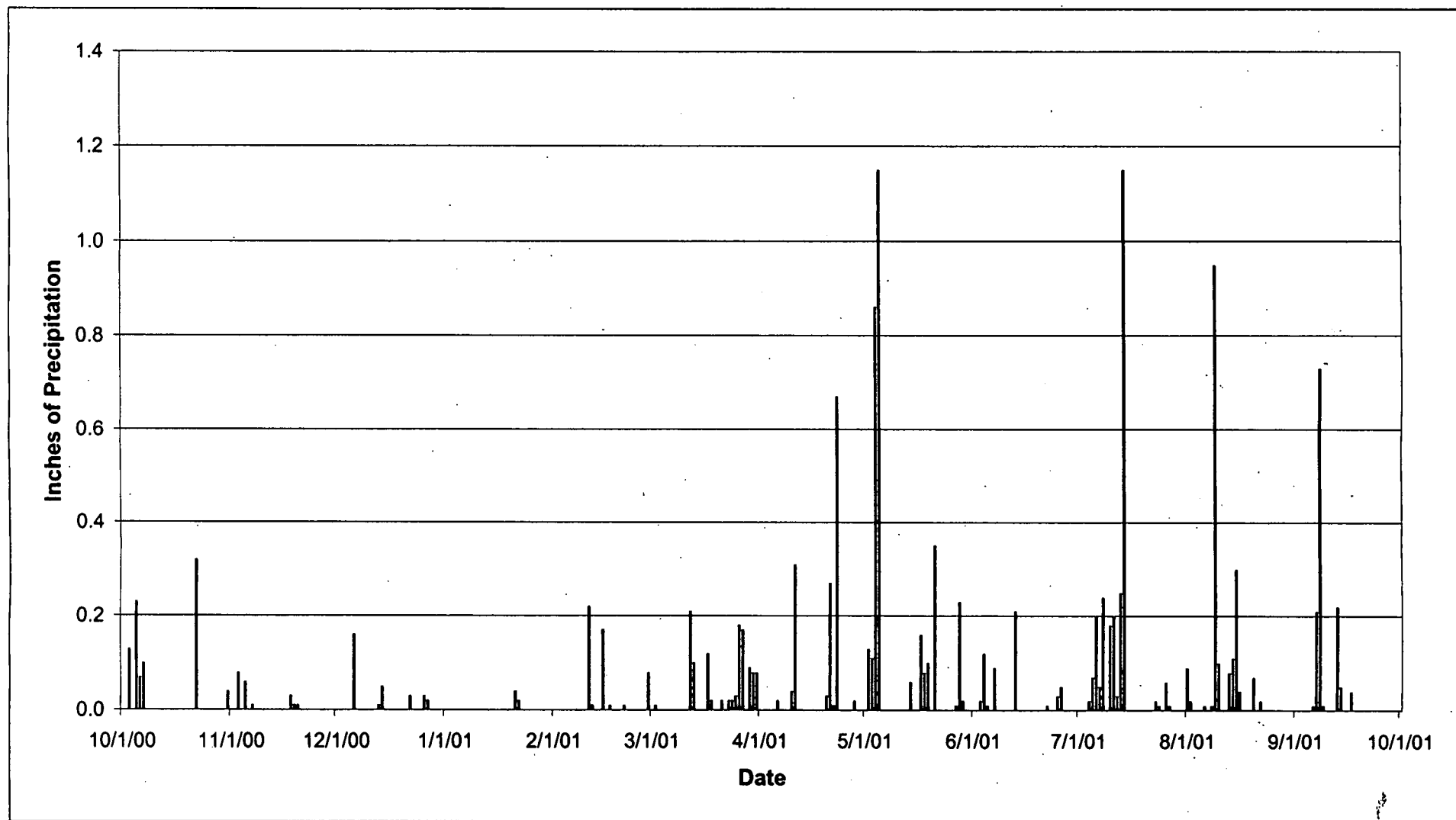


Figure A-8. WY01 Annual Hyetograph at PG61: Gaging Station GS05.

Table A-51. WY01 Precipitation Summary for PG61: Gaging Station GS05.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00
2	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.13	0.00	0.00	0.02	0.00
3	0.13	0.08	0.00	0.00	0.00	0.00	0.00	0.11	0.02	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.12	0.02	0.00	0.00
5	0.23	0.06	0.00	0.00	0.00	0.00	0.00	1.15	0.01	0.07	0.00	0.00
6	0.07	0.00	0.16	0.00	0.00	0.00	0.02	0.00	0.00	0.20	0.01	0.01
7	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.05	0.00	0.21
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.01	0.73
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.01
10	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.18	0.10	0.00
11	0.00	0.00	0.00	0.00	0.22	0.00	0.31	0.00	0.00	0.20	0.00	0.00
12	0.00	0.00	0.00	0.00	0.01	0.21	0.00	0.00	0.00	0.03	0.00	0.00
13	0.00	0.00	0.01	0.00	0.00	0.10	0.00	0.00	0.21	0.25	0.08	0.22
14	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.06	0.00	1.15	0.11	0.05
15	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.30	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
17	0.00	0.00	0.00	0.00	0.01	0.12	0.00	0.16	0.00	0.00	0.00	0.04
18	0.00	0.03	0.00	0.00	0.00	0.02	0.00	0.08	0.00	0.00	0.00	0.00
19	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
20	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.07	0.00
21	0.00	0.00	0.00	0.04	0.01	0.02	0.27	0.35	0.00	0.00	0.00	0.00
22	0.32	0.00	0.03	0.02	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.00
23	0.00	0.00	0.00	0.00	0.00	0.02	0.67	0.00	0.00	0.02	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.00
26	0.00	0.00	0.03	0.00	0.00	0.18	0.00	0.00	0.05	0.06	0.00	0.00
27	0.00	0.00	0.02	0.00	0.00	0.17	0.00	0.01	0.00	0.01	0.00	0.00
28	0.00	0.00	0.00	0.00	0.08	0.00	0.02	0.23	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	NA	0.09	0.00	0.02	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	NA	0.08	0.00	0.00	0.00	0.00	0.00	0.00
31	0.04	NA	0.00	0.00	NA	0.08	NA	0.00	NA	0.00	0.00	NA

Precipitation

Monthly Total	0.89	0.20	0.30	0.06	0.50	1.15	1.37	3.26	0.54	2.49	1.80	1.27
Daily Maximum	0.32	0.08	0.16	0.04	0.22	0.21	0.67	1.15	0.21	1.15	0.95	0.73

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY01

Total Inches 13.83

A.2.9 PG62: Gaging Station SW118

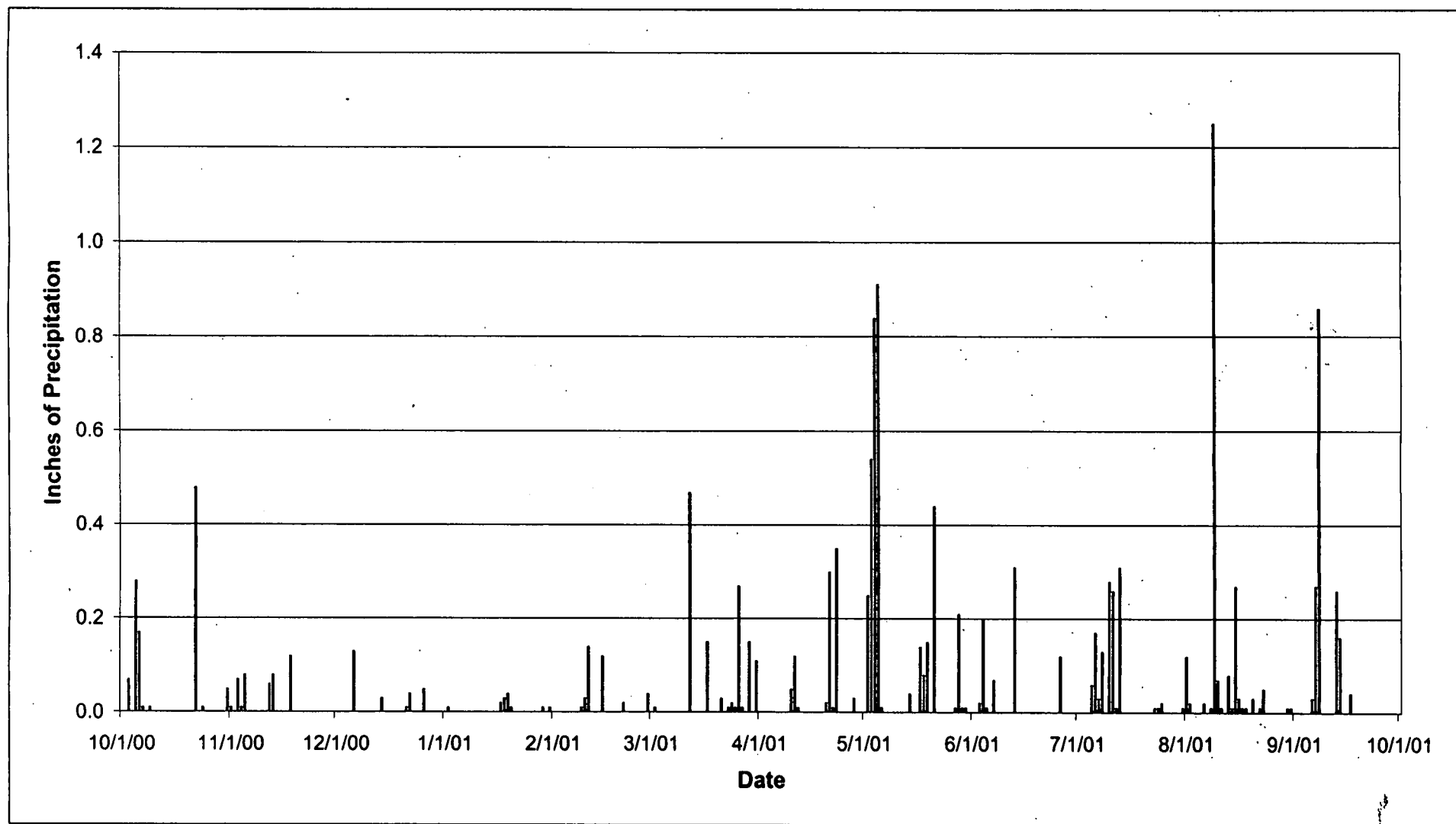


Figure A-9. WY01 Annual Hyetograph at PG62: Gaging Station SW118.

Table A-52. WY01 Precipitation Summary for PG62: Gaging Station SW118.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00
2	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.25	0.00	0.00	0.02	0.00
3	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.54	0.02	0.00	0.00	0.00
4	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.84	0.20	0.00	0.00	0.00
5	0.28	0.08	0.00	0.00	0.00	0.00	0.00	0.91	0.01	0.06	0.00	0.00
6	0.17	0.00	0.13	0.00	0.00	0.00	0.00	0.01	0.00	0.17	0.02	0.03
7	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.03	0.00	0.27
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.01	0.86
9	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.25	0.00
10	0.00	0.00	0.00	0.00	0.03	0.00	0.05	0.00	0.00	0.28	0.07	0.00
11	0.00	0.00	0.00	0.00	0.14	0.00	0.12	0.00	0.00	0.26	0.01	0.00
12	0.00	0.06	0.00	0.00	0.00	0.47	0.01	0.00	0.00	0.01	0.00	0.00
13	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.31	0.08	0.26
14	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	No Data	0.01	0.16
15	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.27	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
17	0.00	0.00	0.00	0.02	0.00	0.15	0.00	0.14	0.00	0.00	0.01	0.04
18	0.00	0.12	0.00	0.03	0.00	0.00	0.00	0.08	0.00	0.00	0.01	0.00
19	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.03	0.00
21	0.00	0.00	0.01	0.00	0.02	0.03	0.30	0.44	0.00	0.00	0.00	0.00
22	0.48	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00
23	0.00	0.00	0.00	0.00	0.00	0.01	0.35	0.00	0.00	0.00	0.01	0.00
24	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00
26	0.00	0.00	0.05	0.00	0.00	0.27	0.00	0.00	0.12	No Data	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.04	0.00	0.03	0.21	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.01	NA	0.15	0.00	0.01	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.01	0.00	0.00	0.01	0.00
31	0.05	NA	0.00	0.01	NA	0.11	NA	0.00	NA	0.01	0.01	NA

Partial Data

Precipitation

Monthly Total	1.08	0.43	0.26	0.13	0.36	1.24	0.89	3.64	0.73	1.30	2.02	1.62
Daily Maximum	0.48	0.12	0.13	0.04	0.14	0.47	0.35	0.91	0.31	0.31	1.25	0.86

Partial Data

Annual Summaries for WY01

KEY: No Data: Bad or missing data due to equipment failures

Total Inches 13.70

Partial Data

A.2.10 PG64: Gaging Station GS27

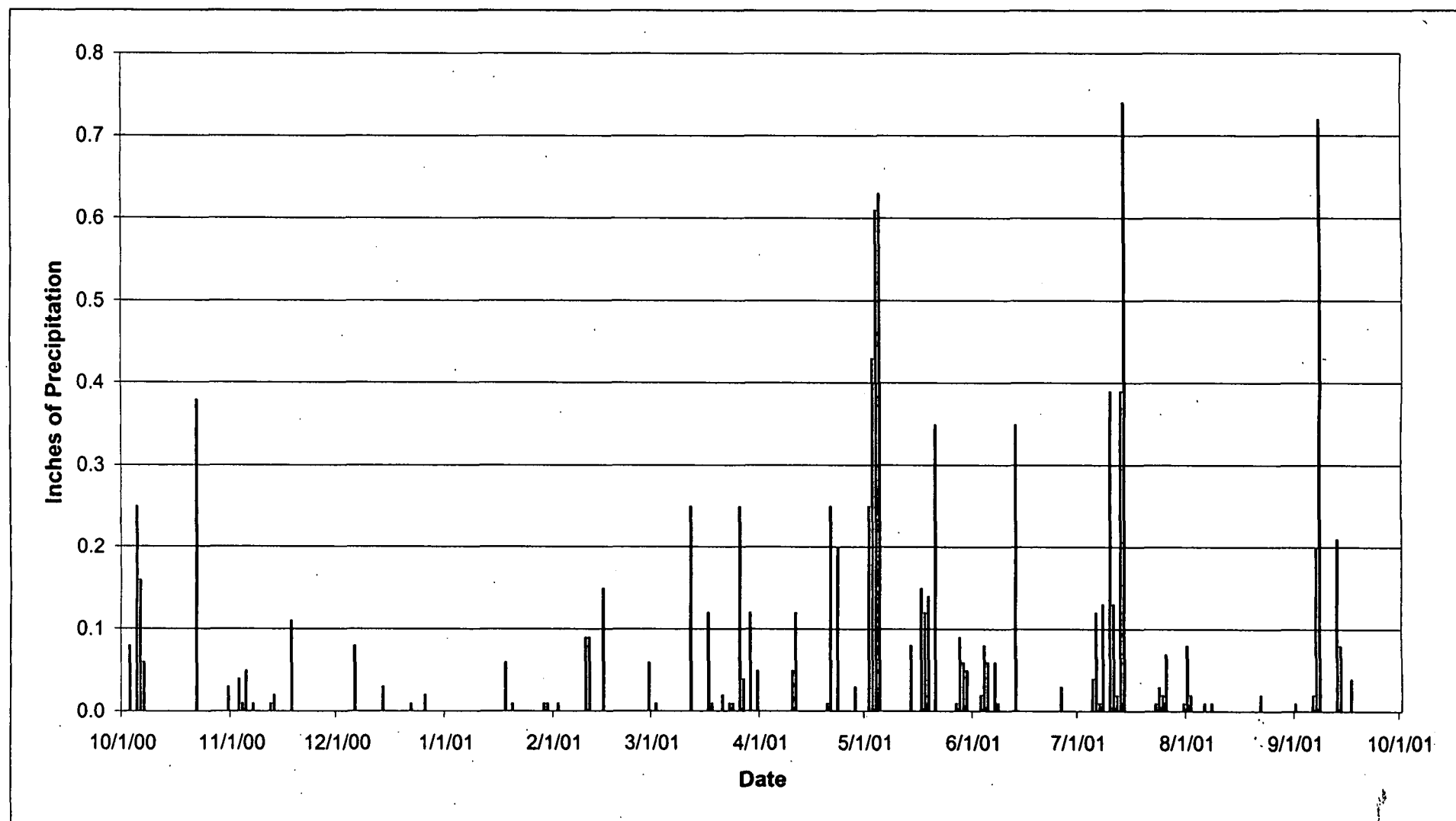


Figure A-10. WY01 Annual Hyetograph at PG64: Gaging Station GS27.

Table A-53. WY01 Precipitation Summary for PG64: Gaging Station GS27.

Water Year 2001: Daily Total Precipitation Values in Inches

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01
2	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.25	0.00	0.00	0.02	0.00
3	0.08	0.04	0.00	0.00	0.00	0.00	0.00	0.43	0.02	0.00	0.00	0.00
4	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.61	0.08	0.00	0.00	0.00
5	0.25	0.05	0.00	0.00	0.00	0.00	0.00	0.63	0.06	0.04	0.00	0.00
6	0.16	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.01	0.02
7	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.00	0.20
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.13	0.01	0.72
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No Data	0.00
10	0.00	0.00	0.00	0.00	0.09	0.00	0.05	0.00	0.00	0.39	No Data	0.00
11	0.00	0.00	0.00	0.00	0.09	0.00	0.12	0.00	0.00	0.13	No Data	0.00
12	0.00	0.01	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.02	No Data	0.00
13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.39	No Data	0.21
14	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.08	0.00	0.74	No Data	0.08
15	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	No Data	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No Data	0.00
17	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.15	0.00	0.00	No Data	0.04
18	0.00	0.11	0.00	0.06	0.00	0.01	0.00	0.12	0.00	0.00	No Data	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	No Data	0.00
20	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	No Data	0.00
21	0.00	0.00	0.00	0.00	0.00	0.02	0.25	0.35	0.00	0.00	0.00	0.00
22	0.38	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
23	0.00	0.00	0.00	0.00	0.00	0.01	0.20	0.00	0.00	0.01	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
26	0.00	0.00	0.02	0.00	0.00	0.25	0.00	0.00	0.03	0.07	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.06	0.00	0.03	0.09	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.01	NA	0.12	0.00	0.06	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.01	NA	0.00	0.00	0.05	0.00	0.00	0.00	0.00
31	0.03	NA	0.00	0.00	NA	0.05	NA	0.00	NA	0.01	0.00	NA

Partial Data

Precipitation

Monthly Total	0.96	0.25	0.14	0.09	0.40	0.89	0.66	2.97	0.61	2.11	0.14	1.28
Daily Maximum	0.38	0.11	0.08	0.06	0.15	0.25	0.25	0.63	0.35	0.74	0.08	0.72

Partial Data

Annual Summaries for WY01

 Total Inches 10.50
 Partial Data

KEY: No Data: Bad or missing data due to equipment failures

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APPENDIX B: WATER-QUALITY DATA

B.1 ANALYTICAL DATA EVALUATION METHODS

95% UTLs / LTLs

Evaluation of analytical water-quality data using UTLs/LTLs is currently performed for the Performance and NSD monitoring objectives. The method is as follows:

- Tolerance limits are calculated semi-monthly for each monitoring location.
- Data sets are generally selected to cover a moving 3-year window of time.¹ The intent is to evaluate for statistically significant changes in water-quality while attempting to minimize seasonal and hydrologic fluctuations.²
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of ½ the MDA is used for calculation purposes. When an undetect is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- The distribution of the data (assumed normal or log-normal) is established using probability plotting (histogram), skewness, D'Agostino's Test ($n \geq 50$), and the W test ($n \leq 50$).
- Based on the distribution(s), 95% tolerance limits with 95% confidence are calculated.
- Individual data are then compared to these tolerance limits, and decision are made based on that comparison tempered by professional judgment.³

30-Day Volume-Weighted Moving Averages

Evaluation of analytical data using 30-day volume-weighted moving averages is currently performed for the POE and POC monitoring objectives. The method is as follows:

- 30-day averages are calculated semi-monthly for each POC and POE (within one week of the 15th and last day of each month).
- Calculations are performed using daily time steps. The 30-day average for a particular day is calculated using a 'window' of time which includes the previous 30 days that had both flow and analytical measurements. Therefore, for a location with continuous flow and complete analytical results, 365 (366 in a leap year) 30-day average values are calculated annually. For a location that flows intermittently, the 30-day window includes the previous 30 days with greater than zero flow. Therefore, the 30-day average at an intermittently flowing location will include more than 30 *calendar* days.

¹ A 3-year moving window is chosen where possible. For many Performance locations, monitoring only lasts a year or two. Under those circumstances, all data is used, and particular qualitative/quantitative attention is given to the effects of hydrology and seasonality on the results.

² Closure activities are expected to result in modifications to contaminant source areas, drainage pathways, and runoff distribution. Such changes in water quality would not necessarily be indicative of a release. Consequently, tolerance limits are being used here to help identify acute releases of contaminants as opposed to long-term changes in water quality. The shortcoming of this approach is that chronic releases may not be indicated by comparison with tolerance limits; however, significant chronic trends should be measured through the POE and POC monitoring objectives.

³ Evaluation will address persistence, trends, and risk of Action Level and/or Standard exceedances at POEs and POCs.

- When no analytical result or measured flow value is available for a particular day, then no 30-day average is calculated for that day (per IMP guidelines). No analytical result may be available either due to a non-sufficient quantity for analysis (referred to as an NSQ condition in the IMP) or a failed lab analysis. Flow measurement may be missing due to equipment failures or adverse weather conditions (winter freezing).
- Each calendar day is assigned the activity or concentration (analytical result in pCi/l or µg/L) of the composite sample that was filling at the end of that day (specifically, at 23:59:59). When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When an undetect is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- Each calendar day has an associated surface-water volume (liters) that was measured by the flow meter. Flow record may contain estimated values for certain conditions.⁴
- The daily surface-water volume is then multiplied by the corresponding activity/concentration to calculate a load (in pCi or µg) for each day.
- The sum of the daily loads (pCi or µg) for the preceding 30-days (with both flow and an analytical result) is divided by the sum of the daily surface-water volumes (liters) for the preceding 30-days to calculate the volume-weighted 30-day average (pCi/L or µg/L). The equation can be given as follows:
$$\frac{\sum_{day=-29}^{day=0} [picocuries]}{\sum_{day=0}^{day=29} [liters]} = 30day \text{ Average}_{day=0} [pCi/L]$$
- The 30-day volume-weighted average values are then rounded to 2 significant figures. No rounding occurs with the measured input numbers prior to calculation of the 30-day averages. Only the final calculated value is rounded. For example, a calculated value of 0.124 pCi/L would be rounded to 0.12 pCi/L. Similarly, a value of 0.246 pCi/L would be rounded to 0.25 pCi/L.
- These 30-day averages are then compared to the appropriate Action Levels and Standards and reported according to the requirements of the IMP and RFCA.

365 Calendar-Day Volume-Weighted Moving Averages

Evaluation of analytical data using 365 calendar-day volume-weighted moving averages is being proposed for post-Closure monitoring objectives. The method is as follows:

- 365 calendar-day averages are calculated monthly for each location (on last day of each month).
- Calculations are performed using daily time steps. The 365 calendar-day average for a particular day is calculated using a 'window' of time which includes the previous 365 calendar days. Therefore, for a location with continuous flow and complete analytical results, 365 (366 in a leap year) daily values are included in each 'window'. For a location that flows intermittently, the 365 calendar-day window will include fewer than 365 daily values, since days of zero flow have no applicable analytical result.
- When no analytical result or measured flow value is available for a particular day, then the day is not included in the 365 calendar-day 'window'. No analytical result may be available either due to a non-

⁴ Estimation is required when flow rates exceed the capacity of the flow-control structure (e.g., a flume), winter ice conditions result in an inaccurate measurement, or there is an equipment failure.

sufficient quantity for analysis (referred to as an NSQ condition in the IMP) or a failed lab analysis. Flow measurement may be missing due to equipment failures or adverse weather conditions (winter freezing).

- Each calendar day is assigned the activity (analytical result in pCi/l) of the composite sample that was filling at the end of that day (specifically, at 23:59:59). When a negative radionuclide result (e.g. - 0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- Each calendar day has an associated surface-water volume (liters) that was measured by the flow meter. Flow record may contain estimated values for certain conditions.⁵
- The daily surface-water volume is then multiplied by the corresponding activity to calculate a load (in pCi) for each day.
- The sum of the daily loads (pCi) for the preceding 365 calendar-days (with both flow and an analytical result) is divided by the sum of the daily surface-water volumes (liters) for the preceding 365 calendar-days to calculate the volume-weighted 365 calendar-day average (pCi/L). The equation can be given as

follows:
$$\frac{\sum_{day=-364}^{day=0} [picocuries]}{\sum_{day=0}^{day=364} [liters]} = 365 \text{ calendar-day Average }_{day=0} [pCi/L]$$

- The 365 calendar-day volume-weighted average values are then rounded to 2 significant figures. No rounding occurs with the measured input numbers prior to calculation of the 365 calendar-day averages. Only the final calculated value is rounded. For example, a calculated value of 0.124 pCi/L would be rounded to 0.12 pCi/L. Similarly, a value of 0.246 pCi/L would be rounded to 0.25 pCi/L.

Volume-Weighted Averages for Various Time Periods (Periodic Averages)

The method is as follows:

- The time-period for the volume-weighted average is selected (e.g., monthly, seasonal, annual, period of sampling, etc.).
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When an undetect is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- The analytical result (pCi/L or µg/L) for a particular composite sample period⁶ is multiplied by the associated flow volume (streamflow in liters) to obtain a load for each composite sample period (pCi or µg).⁷

⁵ Estimation is required when flow rates exceed the capacity of the flow-control structure (e.g., a flume), winter ice conditions result in an inaccurate measurement, or there is an equipment failure.

⁶ When no analytical result is available due to a failed lab analysis or a sample of non-sufficient quantity, the activity for the period of the missing analytical result is estimated. The activity is estimated using the annual or seasonal volume-weighted average or based on the location-specific Pu/Am ratio when only one analyte result is available. The estimation technique is chosen using professional judgment based on location.

- The sum of the individual composite-sampling period loads (for the selected time-period) is calculated in pCi or μg .
- The sum of the sample-period loads (pCi or μg) for the selected time-period is divided by the sum of the sample-period surface-water volumes (liters) to calculate the volume-weighted average (pCi/L or $\mu\text{g/L}$).

The equation can be given as follows:

$$\frac{\sum_{\text{start}}^{\text{end}} [\text{picocuries}]}{\sum_{\text{start}}^{\text{end}} [\text{liters}]} = \text{Volume - Weighted Average [pCi/L]}$$

Loading Analysis

Storm-Event Sampling Analytical Results

Load estimation for storm-event sampling is generally used to evaluate the relative radionuclide loads at monitoring locations that are tributary to POEs and POCs. The method is as follows:

- The time-period for loading comparison is selected (e.g., monthly, seasonal, annual, etc.).
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- The arithmetic average⁸ of the analytical results (pCi/L) for the selected time-period is calculated.⁹
- The average activity is multiplied by the associated flow volume (liters) to obtain a load in pCi.

Continuous Flow-Paced Sampling Analytical Results

Load estimation for continuous flow-paced sampling is generally used to evaluate the relative radionuclide loads of tributary monitoring locations and as an estimation of actual loads at specific monitoring locations. The nature of the continuous sampling during all flow conditions allows for more accurate load calculations compared to storm-event sampling. The method is as follows:

- The time-period for loading comparison is selected (e.g., monthly, seasonal, annual, etc.).
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

⁷ When a composite-sample period overlaps the selected time-period for loading, then a proportion of the load for the entire sampling period is calculated based on relative streamflow volume.

⁸ In addition to arithmetic average activity, median activity, monthly and or seasonal average activity, the minimum variance unbiased (MVU) estimator of the mean activity, and/or other location-specific activity estimation method may be used. The intent is to establish a range of activity estimations (and corresponding load) in order to estimate a range of possible relative load contributions.

⁹ It is unknown if the activity of storm-event runoff is representative of the overall activity of the surface-water discharge for a particular location. If it is assumed that actinide transport increases during high runoff periods (as TSS transport increases), then the average storm-event activity may be an overestimation of the overall activity. For example, at a location with a significant relative proportion of baseflow (assuming baseflow to be of lower activity), a higher load may be estimated than was actually transported. On the other hand, for a location with no flow other than direct runoff, the estimation may be more accurate. Regardless, for most loading estimations the intent is to examine relative loads for multiple tributary monitoring locations. When a relationship between flow rate and activity can be determined (or other relationship), this relationship may be used to estimate load and/or activity.

- The analytical result (pCi/L) for a particular composite sample period⁶ is multiplied by the associated flow volume (streamflow in liters) to obtain a load for each composite sample period (pCi).¹⁰
- The sum of the individual composite-sampling period loads (for the selected time-period) is calculated in pCi.

Box-Whisker Plots

Box-whisker plots are generated using S-Plus statistical evaluation software. The following components are noted (Figure B-1):

- The median is displayed as a blue square point with a horizontal blue line.
- The inner quartile range (IQR) is displayed as a light blue box. The 75th percentile (upper hinge) defines the top of the box. The 25th percentile (lower hinge) defines the bottom of the box.
- The upper 'whisker' is plotted as the largest data value that is less than the upper inner fence (UIF). The UIF is not plotted but can be defined as $UIF = Upper\ Hinge + 1.5(IQR)$.
- The lower 'whisker' is plotted as the smallest data value that is greater than the lower inner fence (LIF). The LIF is not plotted but can be defined as $LIF = Lower\ Hinge - 1.5(IQR)$.
- Data points greater than the UIF or less than the LIF are plotted as red circles with a horizontal red line. These points are statistically classified as 'suspect' in relation to the dataset. These data points may be a result of laboratory error, unusually high of detection limits, and/or unexpected environmental variability. Further data analysis would be required to determine the cause of the 'suspect' values.

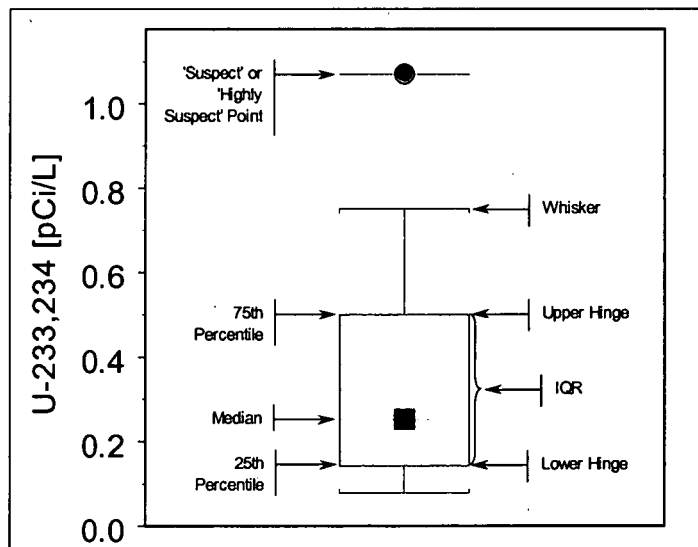


Figure B-1. Sample Box-Whisker Plot.

¹⁰ When a composite-sample period overlaps the selected time-period for loading, then a proportion of the load for the entire sampling period is calculated based on relative streamflow volume.

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B.2 ANALYTICAL DATA

This section includes three tables of analytical data for Water Year 2001. Analytical results are given separately for (1) radionuclides, (2) metals and water-quality parameters, and (3) rinsate samples. Electronic copies of the tables are included in the Appendix Tables directory on the CD-ROM disc. The tables are given in a single Microsoft Excel file containing separate worksheets for each table.

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B.2.1 Radionuclides

Table B-1. Radionuclide Analytical Data: WY2001.

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	01D0271-006	10/27/2000	COMP	AMERICIUM-241	0.005	PCI/L	TR1	U	0.009	0.010	V
995POE	01D0271-006	10/27/2000	COMP	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.007	0.005	V
995POE	01D0271-006	10/27/2000	COMP	TRITIUM	-120	PCI/L	TR1	U	310	170	V1
995POE	01D0271-006	10/27/2000	COMP	URANIUM-233,-234	0.210	PCI/L	TR1	J	0.008	0.035	V
995POE	01D0271-006	10/27/2000	COMP	URANIUM-235	0.003	PCI/L	TR1	U	0.005	0.005	V
995POE	01D0271-006	10/27/2000	COMP	URANIUM-238	0.210	PCI/L	TR1	J	0.011	0.034	V
995POE	01D0310-001	11/28/2000	REAL	AMERICIUM-241	-0.006	PCI/L	TR1	U	0.023	0.006	V1
995POE	01D0310-001	11/28/2000	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.017	0.002	V1
995POE	01D0310-001	11/28/2000	REAL	TRITIUM	-110	PCI/L	TR1	U	270	140	V
995POE	01D0310-001	11/28/2000	REAL	URANIUM-233,-234	0.146	PCI/L	TR1	J	0.022	0.063	V1
995POE	01D0310-001	11/28/2000	REAL	URANIUM-235	-0.002	PCI/L	TR1	U	0.019	0.012	V1
995POE	01D0310-001	11/28/2000	REAL	URANIUM-238	0.185	PCI/L	TR1	J	0.018	0.072	V1
995POE	01D0362-004	12/29/2000	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.030	0.004	V1
995POE	01D0362-004	12/29/2000	REAL	PLUTONIUM-239/240	-0.009	PCI/L	TR1	U	0.018	0.009	V1
995POE	01D0362-004	12/29/2000	REAL	TRITIUM	-94	PCI/L	TR1	U	300	160	V1
995POE	01D0362-004	12/29/2000	REAL	URANIUM-233,-234	0.147	PCI/L	TR1	J	0.022	0.063	V1
995POE	01D0362-004	12/29/2000	REAL	URANIUM-235	0.013	PCI/L	TR1	U	0.018	0.020	V1
995POE	01D0362-004	12/29/2000	REAL	URANIUM-238	0.170	PCI/L	TR1	J	0.018	0.069	V1
995POE	01D0548-005	02/06/2001	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.025	0.017	V1
995POE	01D0548-005	02/06/2001	REAL	PLUTONIUM-239/240	0.020	PCI/L	TR1	J	0.015	0.022	V1
995POE	01D0548-005	02/06/2001	REAL	TRITIUM	-16	PCI/L	TR1	U	289	160	V1
995POE	01D0548-005	02/06/2001	REAL	URANIUM-233,-234	0.199	PCI/L	TR1	J	0.023	0.078	V1
995POE	01D0548-005	02/06/2001	REAL	URANIUM-235	0.020	PCI/L	TR1	J	0.019	0.025	V1
995POE	01D0548-005	02/06/2001	REAL	URANIUM-238	0.163	PCI/L	TR1	J	0.020	0.069	V1
995POE	01D0684-001	03/12/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.024	0.012	V1
995POE	01D0684-001	03/12/2001	REAL	PLUTONIUM-239/240	-0.005	PCI/L	TR1	U	0.022	0.027	V1
995POE	01D0684-001	03/12/2001	REAL	TRITIUM	-140	PCI/L	TR1	U	217	117	V1
995POE	01D0684-001	03/12/2001	REAL	URANIUM-233,-234	0.300	PCI/L	TR1	J	0.017	0.100	V1
995POE	01D0684-001	03/12/2001	REAL	URANIUM-235	0.010	PCI/L	TR1	U	0.016	0.021	V1
995POE	01D0684-001	03/12/2001	REAL	URANIUM-238	0.239	PCI/L	TR1	J	0.020	0.085	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	01D0764-003	04/09/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.023	0.003	V1
995POE	01D0764-003	04/09/2001	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	0.025	0.024	V1
995POE	01D0764-003	04/09/2001	REAL	TRITIUM	-153	PCI/L	TR1	U	311	163	V1
995POE	01D0764-003	04/09/2001	REAL	URANIUM-233,-234	0.604	PCI/L	TR1	J	0.017	0.171	V1
995POE	01D0764-003	04/09/2001	REAL	URANIUM-235	0.038	PCI/L	TR1	J	0.017	0.033	V1
995POE	01D0764-003	04/09/2001	REAL	URANIUM-238	0.543	PCI/L	TR1	J	0.020	0.158	V1
995POE	01D0887-001	05/01/2001	REAL	AMERICIUM-241	0.025	PCI/L	TR1	J	0.021	0.026	V1
995POE	01D0887-001	05/01/2001	REAL	PLUTONIUM-239/240	-0.006	PCI/L	TR1	U	0.028	0.021	V1
995POE	01D0887-001	05/01/2001	REAL	TRITIUM	-96	PCI/L	TR1	U	334	175	V
995POE	01D0887-001	05/01/2001	REAL	URANIUM-233,-234	0.872	PCI/L	TR1	J	0.020	0.234	V1
995POE	01D0887-001	05/01/2001	REAL	URANIUM-235	0.017	PCI/L	TR1	J	0.017	0.022	V1
995POE	01D0887-001	05/01/2001	REAL	URANIUM-238	0.946	PCI/L	TR1	J	0.019	0.251	V1
995POE	01D0984-001	05/24/2001	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0	0	V1
995POE	01D0984-001	05/24/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.021	0.002	V1
995POE	01D0984-001	05/24/2001	REAL	TRITIUM	-253	PCI/L	TR1	U	313	160	V1
995POE	01D0984-001	05/24/2001	REAL	URANIUM-233,-234	0.584	PCI/L	TR1	J	0	0	V1
995POE	01D0984-001	05/24/2001	REAL	URANIUM-235	0.021	PCI/L	TR1	J	0.016	0.023	V1
995POE	01D0984-001	05/24/2001	REAL	URANIUM-238	0.596	PCI/L	TR1	J	0.018	0.168	V1
995POE	01D1133-003	06/21/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0	0	V1
995POE	01D1133-003	06/21/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.022	0.002	V1
995POE	01D1133-003	06/21/2001	REAL	TRITIUM	94	PCI/L	TR1	U	200	120	V1
995POE	01D1133-003	06/21/2001	REAL	URANIUM-233,-234	0.505	PCI/L	TR1	J	0	0	V1
995POE	01D1133-003	06/21/2001	REAL	URANIUM-235	0.018	PCI/L	TR1	U	0.018	0.027	V1
995POE	01D1133-003	06/21/2001	REAL	URANIUM-238	0.455	PCI/L	TR1	J	0.020	0.140	V1
995POE	01D1357-001	07/23/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0	0	V1
995POE	01D1357-001	07/23/2001	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.025	0.019	V1
995POE	01D1357-001	07/23/2001	REAL	TRITIUM	-30	PCI/L	TR1	U	190	100	
995POE	01D1357-001	07/23/2001	REAL	URANIUM-233,-234	0.336	PCI/L	TR1	J	0.024	0.113	V1
995POE	01D1357-001	07/23/2001	REAL	URANIUM-235	0.019	PCI/L	TR1	J	0	0	V1
995POE	01D1357-001	07/23/2001	REAL	URANIUM-238	0.438	PCI/L	TR1	J	0.019	0.135	V1
995POE	01D1390-001	08/23/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.022	0.014	V1
995POE	01D1390-001	08/23/2001	REAL	PLUTONIUM-239/240	-0.006	PCI/L	TR1	U	0.020	0.007	V1
995POE	01D1390-001	08/23/2001	REAL	TRITIUM	-200	PCI/L	TR1	U	267	141	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	01D1390-001	08/23/2001	REAL	URANIUM-233,-234	0.246	PCI/L	TR1	J	0.024	0.094	V1
995POE	01D1390-001	08/23/2001	REAL	URANIUM-235	0.025	PCI/L	TR1	J	0	0	V1
995POE	01D1390-001	08/23/2001	REAL	URANIUM-238	0.307	PCI/L	TR1	J	0.021	0.108	V1
995POE	02D0204-001	09/24/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.018	0.011	V1
995POE	02D0204-001	09/24/2001	REAL	PLUTONIUM-239/240	-0.005	PCI/L	TR1	U	0.026	0.009	V1
995POE	02D0204-001	09/24/2001	REAL	TRITIUM	-136	PCI/L	TR1	U	320	172	V
995POE	02D0204-001	09/24/2001	REAL	URANIUM-233,-234	0.164	PCI/L	TR1	J	0.021	0.068	V1
995POE	02D0204-001	09/24/2001	REAL	URANIUM-235	-0.004	PCI/L	TR1	U	0	0	V1
995POE	02D0204-001	09/24/2001	REAL	URANIUM-238	0.229	PCI/L	TR1	J	0.020	0.083	V1
GS01	01D0239-001	11/06/2000	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.009	0.006	V
GS01	01D0239-001	11/06/2000	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0	0	V
GS01	01D0239-001	11/06/2000	REAL	TRITIUM	130	PCI/L	TR1	U	250	150	V
GS01	01D0239-006	11/17/2000	REAL	AMERICIUM-241	-0.012	PCI/L	TR1	U	0.009	0.007	V
GS01	01D0239-006	11/17/2000	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	J	0.007	0.008	V
GS01	01D0239-006	11/17/2000	REAL	TRITIUM	360	PCI/L	TR1	J	190	130	V
GS01	01D0274-002	11/20/2000	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0	0	V1
GS01	01D0274-002	11/20/2000	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.007	0.003	V1
GS01	01D0274-002	11/20/2000	REAL	TRITIUM	-27	PCI/L	TR1	U	270	150	V
GS01	01D0305-001	12/01/2000	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.009	0.004	V
GS01	01D0305-001	12/01/2000	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0	0	V
GS01	01D0305-001	12/01/2000	REAL	TRITIUM	-84	PCI/L	TR1	U	270	140	V1
GS01	01D0318-001	12/14/2000	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.022	0.017	V1
GS01	01D0318-001	12/14/2000	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	0.019	0.020	V1
GS01	01D0318-001	12/14/2000	REAL	TRITIUM	-38	PCI/L	TR1	U	280	150	V
GS01	01D0337-006	01/02/2001	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0	0	V1
GS01	01D0337-006	01/02/2001	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.015	0.011	V1
GS01	01D0337-006	01/02/2001	REAL	TRITIUM	67	PCI/L	TR1	U	280	160	V1
GS01	01D0348-003	01/15/2001	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.025	0.004	V1
GS01	01D0348-003	01/15/2001	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0	0	V1
GS01	01D0348-003	01/15/2001	REAL	TRITIUM	70	PCI/L	TR1	U	300	170	V1
GS01	01D0362-001	01/22/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.024	0.012	V1
GS01	01D0362-001	01/22/2001	REAL	PLUTONIUM-239/240	-0.014	PCI/L	TR1	U	0.017	0.016	V1
GS01	01D0362-001	01/22/2001	REAL	TRITIUM	130	PCI/L	TR1	U	300	180	V1

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GS01	01D0518-001	02/01/2001	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0	0	V1
GS01	01D0518-001	02/01/2001	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.016	0.015	V1
GS01	01D0518-001	02/01/2001	REAL	TRITIUM	28	PCI/L	TR1	U	272	154	V1
GS01	01D0535-001	02/14/2001	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.026	0.004	V1
GS01	01D0535-001	02/14/2001	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0	0	V1
GS01	01D0535-001	02/14/2001	REAL	TRITIUM	-32	PCI/L	TR1	U	327	185	V1
GS01	01D0592-004	02/28/2001	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.023	0.004	V
GS01	01D0592-004	02/28/2001	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.017	0.010	V
GS01	01D0592-004	02/28/2001	REAL	TRITIUM	-76	PCI/L	TR1	U	280	150	V1
GS01	01D0646-002	03/15/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0	0	V
GS01	01D0646-002	03/15/2001	REAL	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0.015	0.005	V
GS01	01D0646-002	03/15/2001	REAL	TRITIUM	62	PCI/L	TR1	U	248	144	V1
GS01	01D0664-002	03/27/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.023	0.011	V1
GS01	01D0664-002	03/27/2001	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0	0	V1
GS01	01D0664-002	03/27/2001	REAL	TRITIUM	-76	PCI/L	TR1	U	250	135	V1
GS01	01D0692-008	04/03/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.022	0.003	V1
GS01	01D0692-008	04/03/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.024	0.002	V1
GS01	01D0692-008	04/03/2001	REAL	TRITIUM	-108	PCI/L	TR1	U	215	117	V
GS01	01D0737-009	04/16/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0	0	V1
GS01	01D0737-009	04/16/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.020	0.002	V1
GS01	01D0737-009	04/16/2001	REAL	TRITIUM	-32	PCI/L	TR1	U	320	177	V1
GS01	01D0764-001	04/24/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.027	0.014	V1
GS01	01D0764-001	04/24/2001	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0	0	V1
GS01	01D0764-001	04/24/2001	REAL	TRITIUM	-214	PCI/L	TR1	U	311	159	V1
GS01	01D0776-012	05/01/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.025	0.014	V1
GS01	01D0776-012	05/01/2001	REAL	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.017	0.022	V1
GS01	01D0776-012	05/01/2001	REAL	TRITIUM	-93	PCI/L	TR1	U	308	165	V1
GS01	01D0790-001	05/05/2001	REAL	AMERICIUM-241	0.016	PCI/L	TR1	U	0	0	V1
GS01	01D0962-005	05/05/2001	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0.022	0.018	V1
GS01	01D0790-001	05/05/2001	REAL	PLUTONIUM-239/240	0.024	PCI/L	TR1	J	0.017	0.028	V1
GS01	01D0962-005	05/05/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0	0	V1
GS01	01D0790-001	05/05/2001	REAL	TRITIUM	-155	PCI/L	TR1	U	308	161	V1
GS01	01D0962-005	05/05/2001	REAL	TRITIUM	-224	PCI/L	TR1	U	335	175	V1

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GS01	01D0975-002	06/15/2001	REAL	AMERICIUM-241	-0.007	PCI/L	TR1	U	0.022	0.007	V1
GS01	01D0975-002	06/15/2001	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0.024	0.021	V1
GS01	01D0975-002	06/15/2001	REAL	TRITIUM	58	PCI/L	TR1	U	280	160	V1
GS01	01D1000-002	06/20/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0	0	V1
GS01	01D1000-002	06/20/2001	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.018	0.015	V1
GS01	01D1000-002	06/20/2001	REAL	TRITIUM	-136	PCI/L	TR1	U	303	162	V1
GS01	02D0363-004	06/26/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.020	0.013	V1
GS01	02D0363-004	06/26/2001	REAL	PLUTONIUM-239/240	0.017	PCI/L	TR1	U	0	0	V1
GS01	02D0363-004	06/26/2001	REAL	TRITIUM	-106	PCI/L	TR1	U	236	127	V1
GS03	01D0236-001	11/13/2000	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.009	0.008	V1
GS03	01D0236-001	11/13/2000	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	J	0.008	0.009	V1
GS03	01D0238-001	11/16/2000	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.010	0.012	V
GS03	01D0238-001	11/16/2000	REAL	PLUTONIUM-239/240	0.023	PCI/L	TR1	J	0	0	V
GS03	01D0270-001	11/18/2000	REAL	AMERICIUM-241	-0.008	PCI/L	TR1	U	0.009	0.008	V1
GS03	01D0271-001	11/18/2000	DUP	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.009	0.008	V
GS03	01D0270-001	11/18/2000	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0	0	V1
GS03	01D0271-001	11/18/2000	DUP	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.008	0.006	V
GS03	01D0270-001	11/18/2000	REAL	TRITIUM	72	PCI/L	TR1	U	200	110	V1
GS03	01D0271-001	11/18/2000	REAL	TRITIUM	280	PCI/L	TR1	J	230	150	1
GS03	01D0275-001	11/24/2000	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.010	0.008	V
GS03	01D0275-001	11/24/2000	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0	0	V
GS03	01D0275-001	11/24/2000	REAL	TRITIUM	140	PCI/L	TR1	U	190	120	V
GS03	01D0341-001	01/11/2001	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.024	0.012	V1
GS03	01D0341-001	01/11/2001	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0.014	0.019	V1
GS03	01D0341-001	01/11/2001	REAL	TRITIUM	-120	PCI/L	TR1	U	270	140	V
GS03	01D0351-001	01/17/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.022	0.015	V1
GS03	01D0351-001	01/17/2001	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0	0	V1
GS03	01D0351-001	01/17/2001	REAL	TRITIUM	-36	PCI/L	TR1	U	300	170	V1
GS03	01D0603-001	03/12/2001	REAL	AMERICIUM-241	-0.006	PCI/L	TR1	U	0.023	0.006	1
GS03	01D0603-001	03/12/2001	REAL	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.018	0.019	V1
GS03	01D0603-001	03/12/2001	REAL	TRITIUM	15	PCI/L	TR1	U	279	157	V
GS03	01D0631-001	03/16/2001	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0	0	V1
GS03	01D0631-001	03/16/2001	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	0.017	0.021	V1

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GS03	01D0631-001	03/16/2001	REAL	TRITIUM	65	PCI/L	TR1	U	260	151	V
GS03	01D0739-001	03/23/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.024	0.013	V1
GS03	01D0739-001	03/23/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0	0	V1
GS03	01D0739-001	03/23/2001	REAL	TRITIUM	-74	PCI/L	TR1	U	357	190	V
GS03	01D0782-001	04/24/2001	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.022	0.016	V1
GS03	01D0782-001	04/24/2001	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.021	0.018	V1
GS03	01D0782-001	04/24/2001	REAL	TRITIUM	-31	PCI/L	TR1	U	306	169	V1
GS03	01D0787-001	05/03/2001	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0	0	V1
GS03	01D0787-001	05/03/2001	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.018	0.018	V1
GS03	01D0787-001	05/03/2001	REAL	TRITIUM	-187	PCI/L	TR1	U	309	159	V1
GS03	01D0799-001	05/05/2001	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.024	0.018	V1
GS03	01D0799-001	05/05/2001	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.018	0.021	V1
GS03	01D0799-001	05/05/2001	REAL	TRITIUM	-253	PCI/L	TR1	U	321	162	V
GS03	01D0803-001	05/08/2001	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.021	0.018	V1
GS03	01D0803-001	05/08/2001	REAL	PLUTONIUM-239/240	0.028	PCI/L	TR1	J	0	0	V1
GS03	01D0803-001	05/08/2001	REAL	TRITIUM	-190	PCI/L	TR1	U	321	167	V1
GS03	01D0810-001	05/09/2001	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.021	0.018	V1
GS03	01D0810-001	05/09/2001	REAL	PLUTONIUM-239/240	0.026	PCI/L	TR1	J	0.017	0.025	V1
GS03	01D0810-001	05/09/2001	REAL	TRITIUM	-168	PCI/L	TR1	U	329	174	V1
GS03	01D0810-002	05/11/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0	0	V1
GS03	01D0810-002	05/11/2001	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.021	0.022	V1
GS03	01D0810-002	05/11/2001	REAL	TRITIUM	-164	PCI/L	TR1	U	321	169	V1
GS03	01D0822-001	05/13/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.022	0.019	V1
GS03	01D0822-001	05/13/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0	0	V1
GS03	01D0822-001	05/13/2001	REAL	TRITIUM	-225	PCI/L	TR1	U	323	166	V1
GS03	01D0839-001	05/15/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.024	0.013	V1
GS03	01D0839-001	05/15/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.019	0.001	V1
GS03	01D0839-001	05/15/2001	REAL	TRITIUM	-222	PCI/L	TR1	U	318	164	V1
GS03	01D0869-001	05/17/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0	0	V
GS03	01D0869-001	05/17/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.020	0.002	V
GS03	01D0869-001	05/17/2001	REAL	TRITIUM	-151	PCI/L	TR1	U	333	169	V1
GS03	01D0951-001	05/21/2001	REAL	AMERICIUM-241	0.028	PCI/L	TR1	J	0.027	0.031	V1
GS03	01D0951-001	05/21/2001	REAL	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0	0	V1

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GS03	01D0951-001	05/21/2001	REAL	TRITIUM	-179	PCI/L	TR1	U	240	126	V1
GS03	01D1023-001	06/28/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.023	0.013	V1
GS03	01D1023-001	06/28/2001	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.018	0.015	V1
GS03	01D1023-001	06/28/2001	REAL	TRITIUM	-170	PCI/L	TR1	U	316	167	V
GS03	01D1047-001	07/02/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0	0	V1
GS03	01D1047-001	07/02/2001	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.020	0.017	V1
GS03	01D1047-001	07/02/2001	REAL	TRITIUM	-205	PCI/L	TR1	U	307	160	
GS03	01D1076-001	07/10/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.019	0.002	V1
GS03	01D1076-001	07/10/2001	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0	0	V1
GS03	01D1076-001	07/10/2001	REAL	TRITIUM	-67	PCI/L	TR1	U	293	160	V
GS03	01D1076-002	07/12/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.025	0.002	V1
GS03	01D1076-002	07/12/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.020	0.012	V1
GS03	01D1076-002	07/12/2001	REAL	TRITIUM	-39	PCI/L	TR1	U	289	160	V
GS03	01D1198-001	07/15/2001	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0	0	V
GS03	01D1198-001	07/15/2001	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.019	0.015	V
GS03	01D1198-001	07/15/2001	REAL	TRITIUM	130	PCI/L	TR1		177	111	V
GS03	01D1219-001	08/02/2001	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.019	0.016	V
GS03	01D1219-001	08/02/2001	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0	0	V
GS03	01D1219-001	08/02/2001	REAL	TRITIUM	25	PCI/L	TR1		175	99	V1
GS03	01D1308-002	08/07/2001	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.018	0.015	V
GS03	01D1308-002	08/07/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.015	0.013	V
GS03	01D1308-002	08/07/2001	REAL	TRITIUM	-156	PCI/L	TR1	U	336	172	V1
GS03	01D1308-001	08/16/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0	0	V
GS03	01D1308-001	08/16/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.015	0.001	V
GS03	01D1308-001	08/16/2001	REAL	TRITIUM	-131	PCI/L	TR1	U	337	175	V1
GS03	01D1342-001	08/19/2001	REAL	AMERICIUM-241	-0.005	PCI/L	TR1	U	0.018	0.004	V1
GS03	01D1342-001	08/19/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0	0	V1
GS03	01D1342-001	08/19/2001	REAL	TRITIUM	-20	PCI/L	TR1	U	190	100	
GS03	01D1377-001	08/22/2001	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.017	0.014	V
GS03	01D1377-001	08/22/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.015	0.013	V
GS03	01D1377-001	08/22/2001	REAL	TRITIUM	-30	PCI/L	TR1	U	190	99	V1
GS08	01D0239-002	11/13/2000	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.010	0.013	V
GS08	01D0239-002	11/13/2000	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	J	0.007	0.009	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS08	01D0239-002	11/13/2000	REAL	URANIUM-233,-234	0.390	PCI/L	TR1	J	0	0	V
GS08	01D0239-002	11/13/2000	REAL	URANIUM-235	0.006	PCI/L	TR1	J	0.005	0.006	V
GS08	01D0239-002	11/13/2000	REAL	URANIUM-238	0.380	PCI/L	TR1	J	0.010	0.042	V
GS08	01D0271-008	11/20/2000	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0	0	V
GS08	01D0271-009	11/20/2000	DUP	AMERICIUM-241	0.005	PCI/L	TR1	U	0.010	0.013	V
GS08	01D0271-008	11/20/2000	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.008	0.008	V
GS08	01D0271-009	11/20/2000	DUP	PLUTONIUM-239/240	0.008	PCI/L	TR1	J	0	0	V
GS08	01D0271-008	11/20/2000	REAL	URANIUM-233,-234	0.460	PCI/L	TR1	J	0.007	0.044	V
GS08	01D0271-009	11/20/2000	DUP	URANIUM-233,-234	0.450	PCI/L	TR1	J	0.008	0.048	V
GS08	01D0271-008	11/20/2000	REAL	URANIUM-235	0.018	PCI/L	TR1	J	0	0	V
GS08	01D0271-009	11/20/2000	DUP	URANIUM-235	0.004	PCI/L	TR1	U	0.005	0.006	V
GS08	01D0271-008	11/20/2000	REAL	URANIUM-238	0.420	PCI/L	TR1	J	0.010	0.042	V
GS08	01D0271-009	11/20/2000	DUP	URANIUM-238	0.380	PCI/L	TR1	J	0	0	V
GS08	01D0337-007	01/11/2001	REAL	AMERICIUM-241	0.011	PCI/L	TR1	U	0.024	0.019	V1
GS08	01D0337-007	01/11/2001	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0.014	0.019	V1
GS08	01D0337-007	01/11/2001	REAL	URANIUM-233,-234	0.544	PCI/L	TR1	J	0	0	V1
GS08	01D0337-007	01/11/2001	REAL	URANIUM-235	0.024	PCI/L	TR1	J	0.021	0.030	V1
GS08	01D0337-007	01/11/2001	REAL	URANIUM-238	0.427	PCI/L	TR1	J	0.021	0.135	V1
GS08	01D0348-002	01/16/2001	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0	0	V1
GS08	01D0348-002	01/16/2001	REAL	PLUTONIUM-239/240	0.019	PCI/L	TR1	J	0.014	0.026	V1
GS08	01D0348-002	01/16/2001	REAL	URANIUM-233,-234	0.466	PCI/L	TR1	J	0.021	0.138	V1
GS08	01D0348-002	01/16/2001	REAL	URANIUM-235	0.011	PCI/L	TR1	U	0	0	V1
GS08	01D0348-002	01/16/2001	REAL	URANIUM-238	0.399	PCI/L	TR1	J	0.017	0.122	V1
GS08	01D0592-008	03/12/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.025	0.012	V
GS08	01D0592-008	03/12/2001	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0	0	V
GS08	01D0592-008	03/12/2001	REAL	URANIUM-233,-234	0.646	PCI/L	TR1	J	0.022	0.183	V
GS08	01D0592-008	03/12/2001	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.018	0.023	V
GS08	01D0592-008	03/12/2001	REAL	URANIUM-238	0.484	PCI/L	TR1	J	0	0	V
GS08	01D0646-001	03/16/2001	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.022	0.004	V
GS08	01D0646-001	03/16/2001	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.016	0.018	V
GS08	01D0646-001	03/16/2001	REAL	URANIUM-233,-234	0.504	PCI/L	TR1	J	0	0	V
GS08	01D0646-001	03/16/2001	REAL	URANIUM-235	0.009	PCI/L	TR1	U	0.018	0.018	V
GS08	01D0646-001	03/16/2001	REAL	URANIUM-238	0.498	PCI/L	TR1	J	0.021	0.150	V

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS08	01D0790-002	05/03/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0	0	V1
GS08	01D0790-002	05/03/2001	REAL	PLUTONIUM-239/240	0.018	PCI/L	TR1	J	0.016	0.021	V1
GS08	01D0790-002	05/03/2001	REAL	URANIUM-233,-234	0.584	PCI/L	TR1	J	0.016	0.159	V1
GS08	01D0790-002	05/03/2001	REAL	URANIUM-235	0.030	PCI/L	TR1	J	0	0	V1
GS08	01D0790-002	05/03/2001	REAL	URANIUM-238	0.553	PCI/L	TR1	J	0.016	0.153	V1
GS08	01D0800-002	05/05/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.024	0.014	V1
GS08	01D0800-002	05/05/2001	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0	0	V1
GS08	01D0800-002	05/05/2001	REAL	URANIUM-233,-234	0.726	PCI/L	TR1	J	0.021	0.206	V1
GS08	01D0800-002	05/05/2001	REAL	URANIUM-235	0.009	PCI/L	TR1	U	0.018	0.020	V1
GS08	01D0800-002	05/05/2001	REAL	URANIUM-238	0.684	PCI/L	TR1	J	0	0	V1
GS08	01D0805-001	05/07/2001	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.022	0.020	V1
GS08	01D0805-001	05/07/2001	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	0.021	0.023	V1
GS08	01D0805-001	05/07/2001	REAL	URANIUM-233,-234	0.716	PCI/L	TR1	J	0	0	V1
GS08	01D0805-001	05/07/2001	REAL	URANIUM-235	0.037	PCI/L	TR1	J	0.015	0.031	V1
GS08	01D0805-001	05/07/2001	REAL	URANIUM-238	0.666	PCI/L	TR1	J	0.018	0.183	V1
GS08	01D0811-002	05/10/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0	0	V1
GS08	01D0811-002	05/10/2001	REAL	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0.019	0.005	V1
GS08	01D0811-002	05/10/2001	REAL	URANIUM-233,-234	1.110	PCI/L	TR1		0.022	0.301	V1
GS08	01D0811-002	05/10/2001	REAL	URANIUM-235	0.037	PCI/L	TR1	J	0	0	V1
GS08	01D0811-002	05/10/2001	REAL	URANIUM-238	0.972	PCI/L	TR1	J	0.024	0.270	V1
GS08	01D0868-001	05/14/2001	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.025	0.003	V1
GS08	01D0868-001	05/14/2001	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0	0	V1
GS08	01D0868-001	05/14/2001	REAL	URANIUM-233,-234	1.110	PCI/L	TR1		0.020	0.290	V1
GS08	01D0868-001	05/14/2001	REAL	URANIUM-235	0.100	PCI/L	TR1	J	0.018	0.061	V1
GS08	01D0868-001	05/14/2001	REAL	URANIUM-238	1.000	PCI/L	TR1		0	0	V1
GS08	01D1022-001	06/28/2001	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.019	0.015	V1
GS08	01D1022-001	06/28/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.020	0.022	V1
GS08	01D1022-001	06/28/2001	REAL	URANIUM-233,-234	0.794	PCI/L	TR1	J	0	0	V1
GS08	01D1022-001	06/28/2001	REAL	URANIUM-235	0.019	PCI/L	TR1	J	0.016	0.022	V1
GS08	01D1022-001	06/28/2001	REAL	URANIUM-238	0.675	PCI/L	TR1	J	0.018	0.183	V1
GS08	01D1027-005	07/02/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0	0	V1
GS08	01D1027-005	07/02/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.020	0.013	V1
GS08	01D1027-005	07/02/2001	REAL	URANIUM-233,-234	0.730	PCI/L	TR1	J	0.019	0.198	V1

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GS08	01D1027-005	07/02/2001	REAL	URANIUM-235	0.009	PCI/L	TR1	U	0	0	V1
GS08	01D1027-005	07/02/2001	REAL	URANIUM-238	0.710	PCI/L	TR1	J	0.018	0.193	V1
GS08	01D1219-002	08/02/2001	REAL	AMERICIUM-241	0.011	PCI/L	TR1	U	0.020	0.020	V
GS08	01D1219-002	08/02/2001	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0	0	V
GS08	01D1219-002	08/02/2001	REAL	URANIUM-233,-234	0.701	PCI/L	TR1	J	0.022	0.196	V
GS08	01D1219-002	08/02/2001	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.018	0.012	V
GS08	01D1219-002	08/02/2001	REAL	URANIUM-238	0.499	PCI/L	TR1	J	0	0	V
GS08	01D1306-004	08/07/2001	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.018	0.015	V1
GS08	01D1306-004	08/07/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.018	0.011	V1
GS08	01D1306-004	08/07/2001	REAL	URANIUM-233,-234	0.501	PCI/L	TR1	J	0.021	0.151	V1
GS08	01D1306-004	08/07/2001	REAL	URANIUM-235	0.002	PCI/L	TR1	U	0.018	0.019	V1
GS08	01D1306-004	08/07/2001	REAL	URANIUM-238	0.413	PCI/L	TR1	J	0	0	V1
GS10	01D0171-002	10/05/2000	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.024	0.016	V
GS10	01D0171-002	10/05/2000	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.015	0.015	V
GS10	01D0171-002	10/05/2000	REAL	URANIUM-233,-234	1.130	PCI/L	TR1		0.023	0.292	V
GS10	01D0171-002	10/05/2000	REAL	URANIUM-235	0.054	PCI/L	TR1	J	0.020	0.044	V
GS10	01D0171-002	10/05/2000	REAL	URANIUM-238	1.110	PCI/L	TR1		0	0	V
GS10	01D0184-001	10/09/2000	REAL	AMERICIUM-241	0.029	PCI/L	TR1	J	0	0	V1
GS10	01D0184-001	10/09/2000	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.017	0.012	V1
GS10	01D0184-001	10/09/2000	REAL	URANIUM-233,-234	1.870	PCI/L	TR1		0.022	0.449	V1
GS10	01D0184-001	10/09/2000	REAL	URANIUM-235	0.054	PCI/L	TR1	J	0.018	0.042	V1
GS10	01D0184-001	10/09/2000	REAL	URANIUM-238	1.850	PCI/L	TR1		0	0	V1
GS10	01D0199-001	10/18/2000	REAL	AMERICIUM-241	0.017	PCI/L	TR1	J	0.009	0.011	V
GS10	01D0199-001	10/18/2000	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	J	0	0	V
GS10	01D0199-001	10/18/2000	REAL	URANIUM-233,-234	1.100	PCI/L	TR1		0.006	0.070	V
GS10	01D0199-001	10/18/2000	REAL	URANIUM-235	0.038	PCI/L	TR1	J	0.005	0.013	V
GS10	01D0199-001	10/18/2000	REAL	URANIUM-238	1.000	PCI/L	TR1		0	0	V
GS10	01D0239-003	10/26/2000	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.009	0.011	V
GS10	01D0239-003	10/26/2000	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.007	0.009	V
GS10	01D0239-003	10/26/2000	REAL	URANIUM-233,-234	2.200	PCI/L	TR1		0.007	0.100	V
GS10	01D0239-003	10/26/2000	REAL	URANIUM-235	0.093	PCI/L	TR1	J	0.005	0.021	V
GS10	01D0239-003	10/26/2000	REAL	URANIUM-238	2.000	PCI/L	TR1		0	0	V
GS10	01D0305-002	11/17/2000	REAL	AMERICIUM-241	0.012	PCI/L	TR1	J	0	0	V

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	01D0305-002	11/17/2000	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	J	0.008	0.009	V
GS10	01D0305-002	11/17/2000	REAL	URANIUM-233,-234	2.100	PCI/L	TR1		0.007	0.095	V
GS10	01D0305-002	11/17/2000	REAL	URANIUM-235	0.044	PCI/L	TR1	J	0.004	0.014	V
GS10	01D0305-002	11/17/2000	REAL	URANIUM-238	1.800	PCI/L	TR1		0	0	V
GS10	01D0329-001	12/15/2000	REAL	AMERICIUM-241	0.022	PCI/L	TR1	U	0.022	0.024	V1
GS10	01D0329-001	12/15/2000	REAL	PLUTONIUM-239/240	0.054	PCI/L	TR1		0	0	V1
GS10	01D0329-001	12/15/2000	REAL	URANIUM-233,-234	2.450	PCI/L	TR1		0.022	0.585	V1
GS10	01D0329-001	12/15/2000	REAL	URANIUM-235	0.037	PCI/L	TR1	J	0.020	0.034	V1
GS10	01D0329-001	12/15/2000	REAL	URANIUM-238	2.190	PCI/L	TR1		0	1	V1
GS10	01D0362-003	01/08/2001	REAL	AMERICIUM-241	0.017	PCI/L	TR1	U	0.024	0.022	V1
GS10	01D0362-003	01/08/2001	REAL	PLUTONIUM-239/240	0.017	PCI/L	TR1	J	0.016	0.020	V1
GS10	01D0362-003	01/08/2001	REAL	URANIUM-233,-234	2.630	PCI/L	TR1		0.022	0.621	V1
GS10	01D0362-003	01/08/2001	REAL	URANIUM-235	0.100	PCI/L	TR1	J	0.019	0.059	V1
GS10	01D0362-003	01/08/2001	REAL	URANIUM-238	2.350	PCI/L	TR1		0	1	V1
GS10	01D0518-003	02/06/2001	REAL	AMERICIUM-241	0.037	PCI/L	TR1		0	0	V1
GS10	01D0518-003	02/06/2001	REAL	PLUTONIUM-239/240	0.092	PCI/L	TR1		0.020	0.054	V1
GS10	01D0518-003	02/06/2001	REAL	URANIUM-233,-234	1.860	PCI/L	TR1		0.023	0.452	V1
GS10	01D0518-003	02/06/2001	REAL	URANIUM-235	0.090	PCI/L	TR1	J	0.019	0.056	V1
GS10	01D0518-003	02/06/2001	REAL	URANIUM-238	1.730	PCI/L	TR1		0	0	V1
GS10	01D0535-002	02/15/2001	REAL	AMERICIUM-241	0.024	PCI/L	TR1	U	0.025	0.027	V1
GS10	01D0535-002	02/15/2001	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0	0	V1
GS10	01D0535-002	02/15/2001	REAL	URANIUM-233,-234	2.710	PCI/L	TR1		0.023	0.644	V1
GS10	01D0535-002	02/15/2001	REAL	URANIUM-235	0.099	PCI/L	TR1	J	0.020	0.060	V1
GS10	01D0535-002	02/15/2001	REAL	URANIUM-238	2.190	PCI/L	TR1		0.020	0.528	V1
GS10	01D0592-005	02/28/2001	REAL	AMERICIUM-241	0.062	PCI/L	TR1		0.024	0.040	V
GS10	01D0592-005	02/28/2001	REAL	PLUTONIUM-239/240	0.060	PCI/L	TR1		0.017	0.041	V
GS10	01D0592-005	02/28/2001	REAL	URANIUM-233,-234	1.790	PCI/L	TR1		0.023	0.439	V
GS10	01D0592-005	02/28/2001	REAL	URANIUM-235	0.045	PCI/L	TR1	J	0	0	V
GS10	01D0592-005	02/28/2001	REAL	URANIUM-238	1.530	PCI/L	TR1		0.020	0.380	V
GS10	01D0646-004	03/15/2001	REAL	AMERICIUM-241	0.064	PCI/L	TR1		0.024	0.041	V
GS10	01D0646-004	03/15/2001	REAL	PLUTONIUM-239/240	0.049	PCI/L	TR1		0.018	0.037	V
GS10	01D0646-004	03/15/2001	REAL	URANIUM-233,-234	2.340	PCI/L	TR1		0.022	0.563	V
GS10	01D0646-004	03/15/2001	REAL	URANIUM-235	0.089	PCI/L	TR1	J	0	0	V

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GS10	01D0646-004	03/15/2001	REAL	URANIUM-238	2.050	PCI/L	TR1		0.021	0.500	V
GS10	01D0684-006	03/27/2001	REAL	AMERICIUM-241	0.036	PCI/L	TR1		0	0	V1
GS10	01D0684-006	03/27/2001	REAL	PLUTONIUM-239/240	0.064	PCI/L	TR1		0	0	V1
GS10	01D0684-006	03/27/2001	REAL	URANIUM-233,-234	2.530	PCI/L	TR1		0.017	0.595	V1
GS10	01D0684-006	03/27/2001	REAL	URANIUM-235	0.107	PCI/L	TR1	J	0	0	V1
GS10	01D0684-006	03/27/2001	REAL	URANIUM-238	2.570	PCI/L	TR1		0.020	0.603	V1
GS10	01D0692-005	04/09/2001	REAL	AMERICIUM-241	0.374	PCI/L	TR1		0.026	0.138	V1
GS10	01D0692-005	04/09/2001	REAL	PLUTONIUM-239/240	0.199	PCI/L	TR1		0.017	0.078	V1
GS10	01D0692-005	04/09/2001	REAL	URANIUM-233,-234	0.695	PCI/L	TR1	J	0.021	0.196	V1
GS10	01D0692-005	04/09/2001	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0	0	V1
GS10	01D0692-005	04/09/2001	REAL	URANIUM-238	0.697	PCI/L	TR1	J	0.021	0.196	V1
GS10	01D0704-006	04/12/2001	REAL	AMERICIUM-241	0.046	PCI/L	TR1		0.023	0.035	V
GS10	01D0704-006	04/12/2001	REAL	PLUTONIUM-239/240	0.053	PCI/L	TR1		0	0	V
GS10	01D0704-006	04/12/2001	REAL	URANIUM-233,-234	1.680	PCI/L	TR1		0.016	0.404	V
GS10	01D0704-006	04/12/2001	REAL	URANIUM-235	0.070	PCI/L	TR1	J	0.016	0.045	V
GS10	01D0704-006	04/12/2001	REAL	URANIUM-238	1.480	PCI/L	TR1		0.019	0.362	V
GS10	01D0737-007	04/20/2001	REAL	AMERICIUM-241	0.057	PCI/L	TR1		0.022	0.039	V1
GS10	01D0737-007	04/20/2001	REAL	PLUTONIUM-239/240	0.078	PCI/L	TR1		0.018	0.045	V1
GS10	01D0737-007	04/20/2001	REAL	URANIUM-233,-234	0.924	PCI/L	TR1	J	0	0	V1
GS10	01D0737-007	04/20/2001	REAL	URANIUM-235	0.037	PCI/L	TR1	J	0.016	0.032	V1
GS10	01D0737-007	04/20/2001	REAL	URANIUM-238	0.943	PCI/L	TR1	J	0.019	0.247	V1
GS10	01D0776-004	04/24/2001	REAL	AMERICIUM-241	0.048	PCI/L	TR1		0	0	V1
GS10	01D0776-004	04/24/2001	REAL	PLUTONIUM-239/240	0.079	PCI/L	TR1		0.019	0.052	V1
GS10	01D0776-004	04/24/2001	REAL	URANIUM-233,-234	2.400	PCI/L	TR1		0	1	V1
GS10	01D0776-004	04/24/2001	REAL	URANIUM-235	0.087	PCI/L	TR1	J	0.021	0.060	V1
GS10	01D0776-004	04/24/2001	REAL	URANIUM-238	2.090	PCI/L	TR1		0.025	0.530	V1
GS10	01D0790-004	05/03/2001	REAL	AMERICIUM-241	0.043	PCI/L	TR1		0.019	0.032	V1
GS10	01D0790-020	05/03/2001	DUP	AMERICIUM-241	0.099	PCI/L	TR1		0.022	0.054	V1
GS10	01D0790-004	05/03/2001	REAL	PLUTONIUM-239/240	0.058	PCI/L	TR1		0	0	V1
GS10	01D0790-020	05/03/2001	DUP	PLUTONIUM-239/240	0.060	PCI/L	TR1		0.019	0.041	V1
GS10	01D0790-004	05/03/2001	REAL	URANIUM-233,-234	0.369	PCI/L	TR1	J	0	0	V1
GS10	01D0790-020	05/03/2001	DUP	URANIUM-233,-234	0.467	PCI/L	TR1	J	0	0	V1
GS10	01D0790-004	05/03/2001	REAL	URANIUM-235	0.006	PCI/L	TR1	U	0.013	0.014	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	01D0790-020	05/03/2001	DUP	URANIUM-235	0.033	PCI/L	TR1	J	0.016	0.030	V1
GS10	01D0790-004	05/03/2001	REAL	URANIUM-238	0.445	PCI/L	TR1	J	0.017	0.129	V1
GS10	01D0790-020	05/03/2001	DUP	URANIUM-238	0.518	PCI/L	TR1	J	0.019	0.151	V1
GS10	01D0790-003	05/05/2001	REAL	AMERICIUM-241	0.048	PCI/L	TR1		0	0	V1
GS10	01D0868-004	05/05/2001	REAL	AMERICIUM-241	0.117	PCI/L	TR1		0.021	0.059	V1
GS10	01D0790-003	05/05/2001	REAL	PLUTONIUM-239/240	0.110	PCI/L	TR1		0.015	0.051	V1
GS10	01D0868-004	05/05/2001	REAL	PLUTONIUM-239/240	0.130	PCI/L	TR1		0	0	V1
GS10	01D0790-003	05/05/2001	REAL	URANIUM-233,-234	0.423	PCI/L	TR1	J	0	0	V1
GS10	01D0868-004	05/05/2001	REAL	URANIUM-233,-234	2.290	PCI/L	TR1		0	1	V1
GS10	01D0790-003	05/05/2001	REAL	URANIUM-235	0.027	PCI/L	TR1	J	0.013	0.025	V1
GS10	01D0868-004	05/05/2001	REAL	URANIUM-235	0.112	PCI/L	TR1	J	0.017	0.064	V1
GS10	01D0790-003	05/05/2001	REAL	URANIUM-238	0.423	PCI/L	TR1	J	0.017	0.125	V1
GS10	01D0868-004	05/05/2001	REAL	URANIUM-238	2.140	PCI/L	TR1		0.021	0.516	V1
GS10	01D0905-001	05/21/2001	REAL	AMERICIUM-241	0.016	PCI/L	TR1	U	0.024	0.023	V1
GS10	01D0905-001	05/21/2001	REAL	PLUTONIUM-239/240	0.037	PCI/L	TR1		0.018	0.029	V1
GS10	01D0905-001	05/21/2001	REAL	URANIUM-233,-234	2.770	PCI/L	TR1		0	1	V1
GS10	01D0905-001	05/21/2001	REAL	URANIUM-235	0.082	PCI/L	TR1	J	0.019	0.055	V1
GS10	01D0905-001	05/21/2001	REAL	URANIUM-238	2.670	PCI/L	TR1		0.022	0.655	V1
GS10	01D0931-001	06/01/2001	REAL	AMERICIUM-241	0.036	PCI/L	TR1		0	0	V1
GS10	01D0931-001	06/01/2001	REAL	PLUTONIUM-239/240	0.033	PCI/L	TR1		0.022	0.031	V1
GS10	01D0931-001	06/01/2001	REAL	URANIUM-233,-234	3.270	PCI/L	TR1		0	1	V1
GS10	01D0931-001	06/01/2001	REAL	URANIUM-235	0.130	PCI/L	TR1	J	0.019	0.074	V1
GS10	01D0931-001	06/01/2001	REAL	URANIUM-238	3.080	PCI/L	TR1		0.022	0.750	V1
GS10	01D0962-003	06/07/2001	REAL	AMERICIUM-241	0.108	PCI/L	TR1		0.020	0.055	V1
GS10	01D0962-003	06/07/2001	REAL	PLUTONIUM-239/240	0.131	PCI/L	TR1		0	0	V1
GS10	01D0962-003	06/07/2001	REAL	URANIUM-233,-234	2.060	PCI/L	TR1		0	0	V1
GS10	01D0962-003	06/07/2001	REAL	URANIUM-235	0.084	PCI/L	TR1	J	0.015	0.052	V1
GS10	01D0962-003	06/07/2001	REAL	URANIUM-238	1.630	PCI/L	TR1		0.018	0.398	V1
GS10	01D1022-002	06/15/2001	REAL	AMERICIUM-241	0.048	PCI/L	TR1		0.022	0.039	V1
GS10	01D1022-002	06/15/2001	REAL	PLUTONIUM-239/240	0.078	PCI/L	TR1		0.022	0.050	V1
GS10	01D1022-002	06/15/2001	REAL	URANIUM-233,-234	3.130	PCI/L	TR1		0	1	V1
GS10	01D1022-002	06/15/2001	REAL	URANIUM-235	0.141	PCI/L	TR1	J	0.017	0.073	V1
GS10	01D1022-002	06/15/2001	REAL	URANIUM-238	2.560	PCI/L	TR1		0.019	0.604	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	01D1083-001	07/02/2001	REAL	AMERICIUM-241	0.192	PCI/L	TR1		0	0	V1
GS10	01D1083-001	07/02/2001	REAL	PLUTONIUM-239/240	0.190	PCI/L	TR1		0.018	0.076	V1
GS10	01D1083-001	07/02/2001	REAL	URANIUM-233,-234	1.080	PCI/L	TR1		0	0	V1
GS10	01D1083-001	07/02/2001	REAL	URANIUM-235	0.040	PCI/L	TR1	J	0.020	0.037	V1
GS10	01D1083-001	07/02/2001	REAL	URANIUM-238	0.854	PCI/L	TR1	J	0.022	0.237	V1
GS10	01D1083-002	07/12/2001	REAL	AMERICIUM-241	0.084	PCI/L	TR1		0.021	0.051	V1
GS10	01D1083-002	07/12/2001	REAL	PLUTONIUM-239/240	0.085	PCI/L	TR1		0	0	V1
GS10	01D1083-002	07/12/2001	REAL	URANIUM-233,-234	0.379	PCI/L	TR1	J	0	0	V1
GS10	01D1083-002	07/12/2001	REAL	URANIUM-235	0.017	PCI/L	TR1	U	0.018	0.022	V1
GS10	01D1083-002	07/12/2001	REAL	URANIUM-238	0.447	PCI/L	TR1	J	0.020	0.138	V1
GS10	01D1181-001	07/15/2001	REAL	AMERICIUM-241	0.011	PCI/L	TR1	U	0.017	0.017	V1
GS10	01D1181-001	07/15/2001	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.011	0.013	V1
GS10	01D1181-001	07/15/2001	REAL	URANIUM-233,-234	2.660	PCI/L	TR1		0	1	V1
GS10	01D1181-001	07/15/2001	REAL	URANIUM-235	0.072	PCI/L	TR1	J	0.018	0.049	V1
GS10	01D1181-001	07/15/2001	REAL	URANIUM-238	2.600	PCI/L	TR1		0.019	0.617	V1
GS10	01D1237-006	08/01/2001	REAL	AMERICIUM-241	0.052	PCI/L	TR1		0	0	V1
GS10	01D1237-006	08/01/2001	REAL	PLUTONIUM-239/240	0.059	PCI/L	TR1		0.015	0.038	V1
GS10	01D1237-006	08/01/2001	REAL	URANIUM-233,-234	0.928	PCI/L	TR1	J	0	0	V1
GS10	01D1237-006	08/01/2001	REAL	URANIUM-235	0.022	PCI/L	TR1	J	0.018	0.026	V1
GS10	01D1237-006	08/01/2001	REAL	URANIUM-238	0.975	PCI/L	TR1	J	0.020	0.258	V1
GS10	01D1343-001	08/09/2001	REAL	AMERICIUM-241	0.032	PCI/L	TR1		0.019	0.030	V1
GS10	01D1343-001	08/09/2001	REAL	PLUTONIUM-239/240	0.050	PCI/L	TR1		0	0	V1
GS10	01D1343-001	08/09/2001	REAL	URANIUM-233,-234	0.914	PCI/L	TR1	J	0	0	V1
GS10	01D1343-001	08/09/2001	REAL	URANIUM-235	0.015	PCI/L	TR1	U	0.018	0.021	V1
GS10	01D1343-001	08/09/2001	REAL	URANIUM-238	0.908	PCI/L	TR1	J	0.020	0.240	V1
GS10	01D1387-005	08/20/2001	REAL	AMERICIUM-241	0.073	PCI/L	TR1		0.020	0.046	V
GS10	01D1387-005	08/20/2001	REAL	PLUTONIUM-239/240	0.198	PCI/L	TR1		0.017	0.080	V
GS10	01D1387-005	08/20/2001	REAL	URANIUM-233,-234	0.903	PCI/L	TR1	J	0	0	V
GS10	01D1387-005	08/20/2001	REAL	URANIUM-235	0.018	PCI/L	TR1	J	0.018	0.025	V
GS10	01D1387-005	08/20/2001	REAL	URANIUM-238	0.838	PCI/L	TR1	J	0.020	0.223	V
GS10	01D1389-001	09/08/2001	REAL	AMERICIUM-241	0.027	PCI/L	TR1	J	0	0	V1
GS10	01D1389-001	09/08/2001	REAL	PLUTONIUM-239/240	0.019	PCI/L	TR1	J	0.017	0.021	V1
GS10	01D1389-001	09/08/2001	REAL	URANIUM-233,-234	1.480	PCI/L	TR1		0	0	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	01D1389-001	09/08/2001	REAL	URANIUM-235	0.060	PCI/L	TR1	J	0.019	0.046	V1
GS10	01D1389-001	09/08/2001	REAL	URANIUM-238	1.390	PCI/L	TR1		0.020	0.352	V1
GS10	02D0002-002	09/18/2001	REAL	AMERICIUM-241	0.021	PCI/L	TR1	J	0.020	0.024	V1
GS10	02D0002-002	09/18/2001	REAL	PLUTONIUM-239/240	0.033	PCI/L	TR1		0	0	V1
GS10	02D0002-002	09/18/2001	REAL	URANIUM-233,-234	2.530	PCI/L	TR1		0	1	V1
GS10	02D0002-002	09/18/2001	REAL	URANIUM-235	0.092	PCI/L	TR1	J	0.018	0.057	V1
GS10	02D0002-002	09/18/2001	REAL	URANIUM-238	2.190	PCI/L	TR1		0.020	0.525	V1
GS11	01D0239-004	11/13/2000	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0	0	V
GS11	01D0239-004	11/13/2000	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.007	0.005	V
GS11	01D0239-004	11/13/2000	REAL	URANIUM-233,-234	0.570	PCI/L	TR1	J	0.007	0.052	V
GS11	01D0239-004	11/13/2000	REAL	URANIUM-235	0.012	PCI/L	TR1	J	0	0	V
GS11	01D0239-004	11/13/2000	REAL	URANIUM-238	0.590	PCI/L	TR1	J	0.010	0.053	V
GS11	01D0271-007	11/18/2000	REAL	AMERICIUM-241	-0.006	PCI/L	TR1	U	0.010	0.011	V
GS11	01D0271-007	11/18/2000	REAL	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0	0	V
GS11	01D0271-007	11/18/2000	REAL	URANIUM-233,-234	0.620	PCI/L	TR1	J	0.007	0.053	V
GS11	01D0271-007	11/18/2000	REAL	URANIUM-235	0.032	PCI/L	TR1	J	0.005	0.013	V
GS11	01D0271-007	11/18/2000	REAL	URANIUM-238	0.580	PCI/L	TR1	J	0	0	V
GS11	01D0800-003	05/06/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.022	0.013	V1
GS11	01D0800-003	05/06/2001	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.022	0.022	V1
GS11	01D0800-003	05/06/2001	REAL	URANIUM-233,-234	1.540	PCI/L	TR1		0	0	V1
GS11	01D0800-003	05/06/2001	REAL	URANIUM-235	0.068	PCI/L	TR1	J	0.015	0.044	V1
GS11	01D0800-003	05/06/2001	REAL	URANIUM-238	1.550	PCI/L	TR1		0.018	0.377	V1
GS11	01D0805-002	05/08/2001	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0	0	V1
GS11	01D0805-002	05/08/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.020	0.020	V1
GS11	01D0805-002	05/08/2001	REAL	URANIUM-233,-234	1.660	PCI/L	TR1		0.019	0.407	V1
GS11	01D0805-002	05/08/2001	REAL	URANIUM-235	0.056	PCI/L	TR1	J	0	0	V1
GS11	01D0805-002	05/08/2001	REAL	URANIUM-238	1.370	PCI/L	TR1		0.019	0.343	V1
GS11	01D0811-001	05/10/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.020	0.003	V1
GS11	01D0811-001	05/10/2001	REAL	PLUTONIUM-239/240	-0.005	PCI/L	TR1	U	0.018	0.015	V1
GS11	01D0811-001	05/10/2001	REAL	URANIUM-233,-234	1.830	PCI/L	TR1		0.018	0.446	V1
GS11	01D0811-001	05/10/2001	REAL	URANIUM-235	0.107	PCI/L	TR1	J	0.017	0.063	V1
GS11	01D0811-001	05/10/2001	REAL	URANIUM-238	1.720	PCI/L	TR1		0.021	0.421	V1
GS11	01D0827-004	05/13/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0	0	V1

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GS11	01D0827-004	05/13/2001	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.021	0.014	V1
GS11	01D0827-004	05/13/2001	REAL	URANIUM-233,-234	2.040	PCI/L	TR1		0.020	0.501	V1
GS11	01D0827-004	05/13/2001	REAL	URANIUM-235	0.032	PCI/L	TR1	J	0	0	V1
GS11	01D0827-004	05/13/2001	REAL	URANIUM-238	1.880	PCI/L	TR1		0.022	0.464	V1
GS11	01D0861-006	05/16/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.023	0.013	V1
GS11	01D0861-006	05/16/2001	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0	0	V1
GS11	01D0861-006	05/16/2001	REAL	URANIUM-233,-234	1.860	PCI/L	TR1		0.020	0.457	V1
GS11	01D0861-006	05/16/2001	REAL	URANIUM-235	0.071	PCI/L	TR1	J	0.017	0.049	V1
GS11	01D0861-006	05/16/2001	REAL	URANIUM-238	1.860	PCI/L	TR1		0	0	V1
GS11	01D1306-006	08/16/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.019	0.002	V1
GS11	01D1306-006	08/16/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.018	0.001	V1
GS11	01D1306-006	08/16/2001	REAL	URANIUM-233,-234	0.928	PCI/L	TR1	J	0	0	V1
GS11	01D1306-006	08/16/2001	REAL	URANIUM-235	0.054	PCI/L	TR1	J	0.019	0.044	V1
GS11	01D1306-006	08/16/2001	REAL	URANIUM-238	0.897	PCI/L	TR1	J	0.020	0.240	V1
GS11	01D1343-002	08/19/2001	REAL	AMERICIUM-241	-0.005	PCI/L	TR1	U	0	0	V1
GS11	01D1343-002	08/19/2001	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.016	0.019	V1
GS11	01D1343-002	08/19/2001	REAL	URANIUM-233,-234	0.952	PCI/L	TR1	J	0.022	0.256	V1
GS11	01D1343-002	08/19/2001	REAL	URANIUM-235	0.030	PCI/L	TR1	J	0	0	V1
GS11	01D1343-002	08/19/2001	REAL	URANIUM-238	0.921	PCI/L	TR1	J	0.021	0.248	V1
GS11	01D1357-005	08/22/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.021	0.002	V1
GS11	01D1357-005	08/22/2001	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0	0	V1
GS11	01D1357-005	08/22/2001	REAL	URANIUM-233,-234	0.794	PCI/L	TR1	J	0.024	0.220	V1
GS11	01D1357-005	08/22/2001	REAL	URANIUM-235	0.054	PCI/L	TR1	J	0.019	0.042	V1
GS11	01D1357-005	08/22/2001	REAL	URANIUM-238	0.845	PCI/L	TR1	J	0	0	V1
GS27	01D0592-002	03/10/2001	REAL	AMERICIUM-241	0.157	PCI/L	TR1		0.032	0.083	V
GS27	01D0592-002	03/10/2001	REAL	PLUTONIUM-239/240	0.585	PCI/L	TR1		0.015	0.170	V
GS27	01D0592-002	03/10/2001	REAL	URANIUM-233,-234	0.111	PCI/L	TR1	J	0	0	V
GS27	01D0592-002	03/10/2001	REAL	URANIUM-235	-0.003	PCI/L	TR1	U	0.018	0.002	V
GS27	01D0592-002	03/10/2001	REAL	URANIUM-238	0.092	PCI/L	TR1	J	0.020	0.049	V
GS27	01D0737-011	04/21/2001	REAL	AMERICIUM-241	0.071	PCI/L	TR1		0	0	V1
GS27	01D0737-011	04/21/2001	REAL	PLUTONIUM-239/240	0.328	PCI/L	TR1		0.018	0.118	V1
GS27	01D0737-011	04/21/2001	REAL	URANIUM-233,-234	0.054	PCI/L	TR1	J	0.017	0.037	V1
GS27	01D0737-011	04/21/2001	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0	0	V1

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GS27	01D0737-011	04/21/2001	REAL	URANIUM-238	0.083	PCI/L	TR1	J	0.020	0.045	V1
GS27	01D0868-002	05/18/2001	REAL	AMERICIUM-241	0.401	PCI/L	TR1		0.020	0.131	V1
GS27	01D0868-002	05/18/2001	REAL	PLUTONIUM-239/240	1.790	PCI/L	TR1		0	0	V1
GS27	01D0868-002	05/18/2001	REAL	URANIUM-233,-234	0.239	PCI/L	TR1	J	0.022	0.096	V1
GS27	01D0868-002	05/18/2001	REAL	URANIUM-235	0.022	PCI/L	TR1	J	0.020	0.028	V1
GS27	01D0868-002	05/18/2001	REAL	URANIUM-238	0.218	PCI/L	TR1	J	0	0	V1
GS27	01D0962-001	06/13/2001	REAL	AMERICIUM-241	0.034	PCI/L	TR1		0.020	0.029	V1
GS27	01D0962-001	06/13/2001	REAL	PLUTONIUM-239/240	0.226	PCI/L	TR1		0.020	0.086	V1
GS27	01D0962-001	06/13/2001	REAL	URANIUM-233,-234	0.047	PCI/L	TR1	J	0	0	V1
GS27	01D0962-001	06/13/2001	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.016	0.012	V1
GS27	01D0962-001	06/13/2001	REAL	URANIUM-238	0.015	PCI/L	TR1	U	0.019	0.023	V1
GS27	01D1058-003	07/10/2001	REAL	AMERICIUM-241	0.172	PCI/L	TR1		0	0	V1
GS27	01D1058-003	07/10/2001	REAL	PLUTONIUM-239/240	0.581	PCI/L	TR1		0.019	0.180	V1
GS27	01D1058-003	07/10/2001	REAL	URANIUM-233,-234	0.160	PCI/L	TR1	J	0.022	0.069	V1
GS27	01D1058-003	07/10/2001	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0	0	V1
GS27	01D1058-003	07/10/2001	REAL	URANIUM-238	0.159	PCI/L	TR1	J	0.020	0.069	V1
GS27	01D1083-004	07/13/2001	REAL	AMERICIUM-241	0.232	PCI/L	TR1		0.019	0.091	V1
GS27	01D1083-004	07/13/2001	REAL	PLUTONIUM-239/240	0.981	PCI/L	TR1		0	0	V1
GS27	01D1083-004	07/13/2001	REAL	URANIUM-233,-234	0.101	PCI/L	TR1	J	0.024	0.054	V1
GS27	01D1083-004	07/13/2001	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.019	0.014	V1
GS27	01D1083-004	07/13/2001	REAL	URANIUM-238	0.205	PCI/L	TR1	J	0	0	V1
GS27	01D1237-012	08/09/2001	REAL	AMERICIUM-241	0.198	PCI/L	TR1		0.016	0.076	V1
GS27	01D1237-012	08/09/2001	REAL	PLUTONIUM-239/240	0.662	PCI/L	TR1		0.014	0.185	V1
GS27	01D1237-012	08/09/2001	REAL	URANIUM-233,-234	0.075	PCI/L	TR1	J	0	0	V1
GS27	01D1237-012	08/09/2001	REAL	URANIUM-235	-0.007	PCI/L	TR1	U	0.018	0.007	V1
GS27	01D1237-012	08/09/2001	REAL	URANIUM-238	0.092	PCI/L	TR1	J	0.020	0.049	V1
GS27	01D1387-006	09/08/2001	REAL	AMERICIUM-241	0.103	PCI/L	TR1		0	0	V
GS27	01D1387-006	09/08/2001	REAL	PLUTONIUM-239/240	0.227	PCI/L	TR1		0.017	0.088	V
GS27	01D1387-006	09/08/2001	REAL	URANIUM-233,-234	0.043	PCI/L	TR1	J	0.024	0.034	V
GS27	01D1387-006	09/08/2001	REAL	URANIUM-235	-0.003	PCI/L	TR1	U	0	0	V
GS27	01D1387-006	09/08/2001	REAL	URANIUM-238	0.031	PCI/L	TR1	J	0.020	0.029	V
GS31	01D0975-001	06/15/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.020	0.018	V1
GS31	01D0975-001	06/15/2001	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0	0	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS31	01D0975-001	06/15/2001	REAL	URANIUM-233,-234	0.609	PCI/L	TR1	J	0.020	0.173	V1
GS31	01D0975-001	06/15/2001	REAL	URANIUM-235	0.016	PCI/L	TR1	U	0.017	0.021	V1
GS31	01D0975-001	06/15/2001	REAL	URANIUM-238	0.623	PCI/L	TR1	J	0	0	V1
GS31	01D0995-001	06/20/2001	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0.021	0.021	V1
GS31	01D0995-001	06/20/2001	REAL	PLUTONIUM-239/240	0.038	PCI/L	TR1		0.019	0.040	V1
GS31	01D0995-001	06/20/2001	REAL	URANIUM-233,-234	0.615	PCI/L	TR1	J	0	0	V1
GS31	01D0995-001	06/20/2001	REAL	URANIUM-235	0.024	PCI/L	TR1	J	0.017	0.027	V1
GS31	01D0995-001	06/20/2001	REAL	URANIUM-238	0.600	PCI/L	TR1	J	0.019	0.170	V1
GS31	01D0995-002	06/25/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0	0	V1
GS31	01D0995-002	06/25/2001	REAL	PLUTONIUM-239/240	0.109	PCI/L	TR1		0.017	0.054	V1
GS31	01D0995-002	06/25/2001	REAL	URANIUM-233,-234	0.837	PCI/L	TR1	J	0.022	0.224	V1
GS31	01D0995-002	06/25/2001	REAL	URANIUM-235	0.042	PCI/L	TR1	J	0	0	V1
GS31	01D0995-002	06/25/2001	REAL	URANIUM-238	0.887	PCI/L	TR1	J	0.019	0.235	V1
GS32	01D0190-002	10/22/2000	REAL	AMERICIUM-241	0.730	PCI/L	TR1		0.009	0.063	V1
GS32	01D0190-002	10/22/2000	REAL	PLUTONIUM-239/240	0.410	PCI/L	TR1		0	0	V1
GS32	01D0190-002	10/22/2000	REAL	TRITIUM	-110	PCI/L	TR1	U	270	140	V1
GS32	01D0190-002	10/22/2000	REAL	URANIUM-233,-234	0.470	PCI/L	TR1	J	0.008	0.052	V1
GS32	01D0190-002	10/22/2000	REAL	URANIUM-235	0.008	PCI/L	TR1	J	0	0	V1
GS32	01D0190-002	10/22/2000	REAL	URANIUM-238	0.370	PCI/L	TR1	J	0.009	0.046	V1
GS32	01D0507-002	01/18/2001	REAL	AMERICIUM-241	0.739	PCI/L	TR1		0.023	0.215	V1
GS32	01D0507-002	01/18/2001	REAL	PLUTONIUM-239/240	0.507	PCI/L	TR1		0.017	0.159	V1
GS32	01D0507-002	01/18/2001	REAL	TRITIUM	130	PCI/L	TR1	U	300	180	V
GS32	01D0507-002	01/18/2001	REAL	URANIUM-233,-234	2.130	PCI/L	TR1		0	1	V1
GS32	01D0507-002	01/18/2001	REAL	URANIUM-235	0.114	PCI/L	TR1	J	0.021	0.069	V1
GS32	01D0507-002	01/18/2001	REAL	URANIUM-238	1.370	PCI/L	TR1		0.021	0.355	V1
GS32	01D0548-011	03/10/2001	REAL	AMERICIUM-241	0.823	PCI/L	TR1		0	0	V1
GS32	01D0548-011	03/10/2001	REAL	PLUTONIUM-239/240	0.497	PCI/L	TR1		0.019	0.163	V1
GS32	01D0548-011	03/10/2001	REAL	TRITIUM	15	PCI/L	TR1	U	278	156	V1
GS32	01D0548-011	03/10/2001	REAL	URANIUM-233,-234	1.460	PCI/L	TR1		0.026	0.381	V1
GS32	01D0548-011	03/10/2001	REAL	URANIUM-235	0.072	PCI/L	TR1	J	0.023	0.054	V1
GS32	01D0548-011	03/10/2001	REAL	URANIUM-238	0.893	PCI/L	TR1	J	0	0	V1
GS32	01D0962-002	06/13/2001	REAL	AMERICIUM-241	0.293	PCI/L	TR1		0.019	0.104	V1
GS32	01D0962-002	06/13/2001	REAL	PLUTONIUM-239/240	0.303	PCI/L	TR1		0	0	V1

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GS32	01D0962-002	06/13/2001	REAL	TRITIUM	-351	PCI/L	TR1	U	316	157	V1
GS32	01D0962-002	06/13/2001	REAL	URANIUM-233,-234	2.650	PCI/L	TR1		0.020	0.624	V1
GS32	01D0962-002	06/13/2001	REAL	URANIUM-235	0.093	PCI/L	TR1	J	0	0	V1
GS32	01D0962-002	06/13/2001	REAL	URANIUM-238	1.220	PCI/L	TR1		0.019	0.310	V1
GS32	01D1065-001	07/06/2001	REAL	AMERICIUM-241	0.689	PCI/L	TR1		0.019	0.206	V1
GS32	01D1065-001	07/06/2001	REAL	PLUTONIUM-239/240	1.860	PCI/L	TR1		0.018	0.478	V1
GS32	01D1065-001	07/06/2001	REAL	TRITIUM	-203	PCI/L	TR1	U	304	158	V1
GS32	01D1065-001	07/06/2001	REAL	URANIUM-233,-234	1.500	PCI/L	TR1		0	0	V1
GS32	01D1065-001	07/06/2001	REAL	URANIUM-235	0.066	PCI/L	TR1	J	0.024	0.058	V1
GS32	01D1065-001	07/06/2001	REAL	URANIUM-238	0.875	PCI/L	TR1	J	0.027	0.259	V1
GS32	01D1237-010	08/09/2001	REAL	AMERICIUM-241	2.250	PCI/L	TR1		0	1	V1
GS32	01D1237-010	08/09/2001	REAL	PLUTONIUM-239/240	3.200	PCI/L	TR1		0.017	0.803	V1
GS32	01D1237-010	08/09/2001	REAL	TRITIUM	80	PCI/L	TR1	U	190	110	
GS32	01D1237-010	08/09/2001	REAL	URANIUM-233,-234	1.300	PCI/L	TR1		0.033	0.381	V1
GS32	01D1237-010	08/09/2001	REAL	URANIUM-235	0.051	PCI/L	TR1	J	0.030	0.055	V1
GS32	01D1237-010	08/09/2001	REAL	URANIUM-238	1.170	PCI/L	TR1		0	0	V1
GS32	01D1387-003	09/07/2001	REAL	AMERICIUM-241	0.469	PCI/L	TR1		0.020	0.154	V
GS32	01D1387-003	09/07/2001	REAL	PLUTONIUM-239/240	0.479	PCI/L	TR1		0	0	V
GS32	01D1387-003	09/07/2001	REAL	TRITIUM	1	PCI/L	TR1	U	180	99	1
GS32	01D1387-003	09/07/2001	REAL	URANIUM-233,-234	0.515	PCI/L	TR1	J	0.028	0.166	V
GS32	01D1387-003	09/07/2001	REAL	URANIUM-235	0.026	PCI/L	TR1	J	0	0	V
GS32	01D1387-003	09/07/2001	REAL	URANIUM-238	0.409	PCI/L	TR1	J	0.025	0.140	V
GS38	01D0310-002	10/03/2000	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.010	0.005	V1
GS38	01D0310-002	10/03/2000	REAL	PLUTONIUM-239/240	0.024	PCI/L	TR1	J	0	0	V1
GS38	01D0684-007	03/10/2001	REAL	AMERICIUM-241	0.016	PCI/L	TR1	U	0.025	0.023	V1
GS38	01D0684-007	03/10/2001	REAL	PLUTONIUM-239/240	0.104	PCI/L	TR1		0.018	0.054	V1
GS38	01D0692-001	04/12/2001	REAL	AMERICIUM-241	0.040	PCI/L	TR1		0	0	V1
GS38	01D0692-001	04/12/2001	REAL	PLUTONIUM-239/240	0.213	PCI/L	TR1		0.018	0.084	V1
GS38	01D0737-001	04/16/2001	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.021	0.015	V1
GS38	01D0737-001	04/16/2001	REAL	PLUTONIUM-239/240	0.052	PCI/L	TR1		0	0	V1
GS38	01D0776-007	04/23/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.023	0.022	V1
GS38	01D0776-007	04/23/2001	REAL	PLUTONIUM-239/240	0.123	PCI/L	TR1		0.023	0.070	V1
GS38	01D0790-005	05/04/2001	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.018	0.018	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS38	01D0790-005	05/04/2001	REAL	PLUTONIUM-239/240	0.086	PCI/L	TR1		0.017	0.049	V1
GS38	01D0861-003	05/05/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0	0	V1
GS38	01D0861-003	05/05/2001	REAL	PLUTONIUM-239/240	0.023	PCI/L	TR1	J	0.020	0.030	V1
GS38	01D1058-001	05/21/2001	REAL	AMERICIUM-241	0.031	PCI/L	TR1		0.018	0.027	V1
GS38	01D1058-001	05/21/2001	REAL	PLUTONIUM-239/240	0.091	PCI/L	TR1		0	0	V1
GS38	01D1083-005	07/11/2001	REAL	AMERICIUM-241	0.042	PCI/L	TR1		0.020	0.034	V1
GS38	01D1083-005	07/11/2001	REAL	PLUTONIUM-239/240	0.219	PCI/L	TR1		0.015	0.077	V1
GS38	01D1237-011	07/15/2001	REAL	AMERICIUM-241	0.025	PCI/L	TR1	J	0	0	V1
GS38	01D1237-011	07/15/2001	REAL	PLUTONIUM-239/240	0.060	PCI/L	TR1		0.015	0.038	V1
GS38	01D1387-009	08/10/2001	REAL	AMERICIUM-241	0.034	PCI/L	TR1		0.017	0.028	V
GS38	01D1387-009	08/10/2001	REAL	PLUTONIUM-239/240	0.099	PCI/L	TR1		0	0	V
GS38	02D0361-002	09/13/2001	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0.026	0.024	
GS38	02D0361-002	09/13/2001	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	0.020	0.023	
GS39	01D0310-003	10/05/2000	REAL	AMERICIUM-241	0.083	PCI/L	TR1		0	0	V1
GS39	01D0310-003	10/05/2000	REAL	PLUTONIUM-239/240	0.640	PCI/L	TR1		0.009	0.059	V1
GS39	01D0684-008	02/15/2001	REAL	AMERICIUM-241	0.047	PCI/L	TR1		0.025	0.038	V1
GS39	01D0684-008	02/15/2001	REAL	PLUTONIUM-239/240	0.205	PCI/L	TR1		0	0	V1
GS39	01D0692-002	04/12/2001	REAL	AMERICIUM-241	0.038	PCI/L	TR1		0.020	0.029	V1
GS39	01D0692-002	04/12/2001	REAL	PLUTONIUM-239/240	0.194	PCI/L	TR1		0.019	0.080	V1
GS39	01D0737-002	04/17/2001	REAL	AMERICIUM-241	0.029	PCI/L	TR1	J	0	0	V1
GS39	01D0737-002	04/17/2001	REAL	PLUTONIUM-239/240	0.044	PCI/L	TR1		0.020	0.034	V1
GS39	01D0776-008	04/23/2001	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.026	0.020	V1
GS39	01D0776-008	04/23/2001	REAL	PLUTONIUM-239/240	0.136	PCI/L	TR1		0	0	V1
GS39	01D0790-006	05/04/2001	REAL	AMERICIUM-241	0.022	PCI/L	TR1	J	0.018	0.021	V1
GS39	01D0790-006	05/04/2001	REAL	PLUTONIUM-239/240	0.056	PCI/L	TR1		0	0	V1
GS39	01D0861-004	05/05/2001	REAL	AMERICIUM-241	0.046	PCI/L	TR1		0.021	0.034	V1
GS39	01D0861-004	05/05/2001	REAL	PLUTONIUM-239/240	0.044	PCI/L	TR1		0.023	0.041	V1
GS39	01D1058-002	05/21/2001	REAL	AMERICIUM-241	0.018	PCI/L	TR1	U	0	0	V1
GS39	01D1058-002	05/21/2001	REAL	PLUTONIUM-239/240	0.130	PCI/L	TR1		0.020	0.064	V1
GS39	01D1083-007	07/11/2001	REAL	AMERICIUM-241	0.020	PCI/L	TR1	U	0.020	0.024	V1
GS39	01D1083-007	07/11/2001	REAL	PLUTONIUM-239/240	0.087	PCI/L	TR1		0	0	V1
GS39	01D1237-009	08/09/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.019	0.011	V1
GS39	01D1237-009	08/09/2001	REAL	PLUTONIUM-239/240	0.068	PCI/L	TR1		0.016	0.041	V1

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GS39	01D1387-008	08/10/2001	REAL	AMERICIUM-241	0.029	PCI/L	TR1	J	0	0	V
GS39	01D1387-008	08/10/2001	REAL	PLUTONIUM-239/240	0.046	PCI/L	TR1		0.016	0.032	V
GS40	01D0225-006	10/21/2000	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.011	0.011	V
GS40	01D0225-006	10/21/2000	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0	0	V
GS40	01D0225-006	10/21/2000	REAL	TRITIUM	220	PCI/L	TR1	J	210	130	V
GS40	01D0225-006	10/21/2000	REAL	URANIUM-233,-234	1.200	PCI/L	TR1		0.007	0.072	V
GS40	01D0225-006	10/21/2000	REAL	URANIUM-235	0.055	PCI/L	TR1	J	0.004	0.016	V
GS40	01D0225-006	10/21/2000	REAL	URANIUM-238	1.700	PCI/L	TR1		0.010	0.085	V
GS40	01D0329-003	11/29/2000	REAL	AMERICIUM-241	0.020	PCI/L	TR1	U	0.024	0.025	V1
GS40	01D0329-003	11/29/2000	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0.015	0.020	V1
GS40	01D0329-003	11/29/2000	REAL	TRITIUM	73	PCI/L	TR1	U	270	160	V1
GS40	01D0329-003	11/29/2000	REAL	URANIUM-233,-234	1.650	PCI/L	TR1		0.021	0.401	V1
GS40	01D0329-003	11/29/2000	REAL	URANIUM-235	0.065	PCI/L	TR1	J	0.018	0.045	V1
GS40	01D0329-003	11/29/2000	REAL	URANIUM-238	2.090	PCI/L	TR1		0.019	0.496	V1
GS40	01D0348-004	01/09/2001	REAL	AMERICIUM-241	0.020	PCI/L	TR1	U	0	0	V1
GS40	01D0348-004	01/09/2001	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.015	0.014	V1
GS40	01D0348-004	01/09/2001	REAL	TRITIUM	-72	PCI/L	TR1	U	300	160	V1
GS40	01D0348-004	01/09/2001	REAL	URANIUM-233,-234	1.810	PCI/L	TR1		0.022	0.441	V1
GS40	01D0348-004	01/09/2001	REAL	URANIUM-235	0.048	PCI/L	TR1	J	0.019	0.039	V1
GS40	01D0348-004	01/09/2001	REAL	URANIUM-238	2.070	PCI/L	TR1		0.019	0.498	V1
GS40	01D0548-009	02/07/2001	REAL	AMERICIUM-241	0.069	PCI/L	TR1		0.023	0.042	V1
GS40	01D0548-009	02/07/2001	REAL	PLUTONIUM-239/240	0.085	PCI/L	TR1		0	0	V1
GS40	01D0548-009	02/07/2001	REAL	TRITIUM	46	PCI/L	TR1	U	281	161	V1
GS40	01D0548-009	02/07/2001	REAL	URANIUM-233,-234	1.120	PCI/L	TR1		0.023	0.291	V1
GS40	01D0548-009	02/07/2001	REAL	URANIUM-235	0.040	PCI/L	TR1	J	0.020	0.036	V1
GS40	01D0548-009	02/07/2001	REAL	URANIUM-238	1.400	PCI/L	TR1		0.021	0.353	V1
GS40	01D0684-003	03/13/2001	REAL	AMERICIUM-241	0.016	PCI/L	TR1	U	0.022	0.022	V1
GS40	01D0684-003	03/13/2001	REAL	PLUTONIUM-239/240	0.027	PCI/L	TR1	J	0.017	0.030	V1
GS40	01D0684-003	03/13/2001	REAL	TRITIUM	-108	PCI/L	TR1	U	215	117	V1
GS40	01D0684-003	03/13/2001	REAL	URANIUM-233,-234	1.190	PCI/L	TR1		0.017	0.305	V1
GS40	01D0684-003	03/13/2001	REAL	URANIUM-235	0.044	PCI/L	TR1	J	0.017	0.036	V1
GS40	01D0684-003	03/13/2001	REAL	URANIUM-238	1.300	PCI/L	TR1		0.020	0.329	V1
GS40	01D0737-005	04/06/2001	REAL	AMERICIUM-241	0.067	PCI/L	TR1		0	0	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS40	01D0737-005	04/06/2001	REAL	PLUTONIUM-239/240	0.035	PCI/L	TR1		0.018	0.029	V1
GS40	01D0737-005	04/06/2001	REAL	TRITIUM	-126	PCI/L	TR1	U	320	170	V1
GS40	01D0737-005	04/06/2001	REAL	URANIUM-233,-234	0.767	PCI/L	TR1	J	0.017	0.210	V1
GS40	01D0737-005	04/06/2001	REAL	URANIUM-235	0.040	PCI/L	TR1	J	0.017	0.034	V1
GS40	01D0737-005	04/06/2001	REAL	URANIUM-238	0.915	PCI/L	TR1	J	0.020	0.243	V1
GS40	01D0776-009	04/23/2001	REAL	AMERICIUM-241	0.085	PCI/L	TR1		0.025	0.053	V1
GS40	01D0776-009	04/23/2001	REAL	PLUTONIUM-239/240	0.045	PCI/L	TR1		0.017	0.034	V1
GS40	01D0776-009	04/23/2001	REAL	TRITIUM	-91	PCI/L	TR1	U	299	160	V1
GS40	01D0776-009	04/23/2001	REAL	URANIUM-233,-234	1.100	PCI/L	TR1		0.018	0.288	V1
GS40	01D0776-009	04/23/2001	REAL	URANIUM-235	0.067	PCI/L	TR1	J	0.017	0.047	V1
GS40	01D0776-009	04/23/2001	REAL	URANIUM-238	1.050	PCI/L	TR1		0.021	0.278	V1
GS40	01D0790-007	05/04/2001	REAL	AMERICIUM-241	0.016	PCI/L	TR1	U	0.019	0.019	V1
GS40	01D0790-007	05/04/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.017	0.018	V1
GS40	01D0790-007	05/04/2001	REAL	TRITIUM	-31	PCI/L	TR1	U	307	169	V1
GS40	01D0790-007	05/04/2001	REAL	URANIUM-233,-234	0.242	PCI/L	TR1	J	0.017	0.083	V1
GS40	01D0790-007	05/04/2001	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.014	0.010	V1
GS40	01D0790-007	05/04/2001	REAL	URANIUM-238	0.289	PCI/L	TR1	J	0.017	0.095	V1
GS40	01D0887-002	05/05/2001	REAL	AMERICIUM-241	0.085	PCI/L	TR1		0.020	0.049	V1
GS40	01D0887-002	05/05/2001	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.017	0.016	V1
GS40	01D0887-002	05/05/2001	REAL	TRITIUM	14	PCI/L	TR1	U	333	185	V
GS40	01D0887-002	05/05/2001	REAL	URANIUM-233,-234	2.020	PCI/L	TR1		0.021	0.492	V1
GS40	01D0887-002	05/05/2001	REAL	URANIUM-235	0.078	PCI/L	TR1	J	0.018	0.052	V1
GS40	01D0887-002	05/05/2001	REAL	URANIUM-238	2.070	PCI/L	TR1		0.020	0.503	V1
GS40	01D1011-004	05/24/2001	REAL	AMERICIUM-241	0.026	PCI/L	TR1	J	0.019	0.027	V1
GS40	01D1011-004	05/24/2001	REAL	PLUTONIUM-239/240	0.020	PCI/L	TR1	J	0.019	0.025	V1
GS40	01D1011-004	05/24/2001	REAL	TRITIUM	-227	PCI/L	TR1	U	315	163	
GS40	01D1011-004	05/24/2001	REAL	URANIUM-233,-234	1.780	PCI/L	TR1		0.021	0.429	V1
GS40	01D1011-004	05/24/2001	REAL	URANIUM-235	0.080	PCI/L	TR1	J	0.016	0.050	V1
GS40	01D1011-004	05/24/2001	REAL	URANIUM-238	1.770	PCI/L	TR1		0.018	0.427	V1
GS40	01D1097-001	06/28/2001	REAL	AMERICIUM-241	0.043	PCI/L	TR1		0.018	0.033	V1
GS40	01D1097-001	06/28/2001	REAL	PLUTONIUM-239/240	0.017	PCI/L	TR1	U	0.019	0.022	V1
GS40	01D1097-001	06/28/2001	REAL	TRITIUM	-2	PCI/L	TR1		180	99	V1
GS40	01D1097-001	06/28/2001	REAL	URANIUM-233,-234	0.814	PCI/L	TR1	J	0.024	0.232	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS40	01D1097-001	06/28/2001	REAL	URANIUM-235	0.076	PCI/L	TR1	J	0.021	0.056	V1
GS40	01D1097-001	06/28/2001	REAL	URANIUM-238	1.020	PCI/L	TR1		0.022	0.279	V1
GS40	01D1237-007	07/16/2001	REAL	AMERICIUM-241	0.045	PCI/L	TR1		0.018	0.034	V1
GS40	01D1237-007	07/16/2001	REAL	PLUTONIUM-239/240	0.047	PCI/L	TR1		0.016	0.033	V1
GS40	01D1237-007	07/16/2001	REAL	TRITIUM	-20	PCI/L	TR1	U	190	100	
GS40	01D1237-007	07/16/2001	REAL	URANIUM-233,-234	1.320	PCI/L	TR1		0.022	0.338	V1
GS40	01D1237-007	07/16/2001	REAL	URANIUM-235	0.068	PCI/L	TR1	J	0.018	0.050	V1
GS40	01D1237-007	07/16/2001	REAL	URANIUM-238	1.960	PCI/L	TR1		0.021	0.479	V1
GS40	01D1387-002	08/09/2001	REAL	AMERICIUM-241	0.032	PCI/L	TR1		0.020	0.030	V
GS40	01D1387-002	08/09/2001	REAL	PLUTONIUM-239/240	0.058	PCI/L	TR1		0.019	0.040	V
GS40	01D1387-002	08/09/2001	REAL	TRITIUM	10	PCI/L	TR1	U	180	100	1
GS40	01D1387-002	08/09/2001	REAL	URANIUM-233,-234	1.200	PCI/L	TR1		0.026	0.317	V
GS40	01D1387-002	08/09/2001	REAL	URANIUM-235	0.066	PCI/L	TR1	J	0.021	0.050	V
GS40	01D1387-002	08/09/2001	REAL	URANIUM-238	1.410	PCI/L	TR1		0.023	0.363	V
GS40	02D0002-003	09/08/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.020	0.013	V1
GS40	02D0002-003	09/08/2001	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0.015	0.016	V1
GS40	02D0002-003	09/08/2001	REAL	TRITIUM	-200	PCI/L	TR1	U	267	140	V1
GS40	02D0002-003	09/08/2001	REAL	URANIUM-233,-234	1.280	PCI/L	TR1		0.022	0.325	V1
GS40	02D0002-003	09/08/2001	REAL	URANIUM-235	0.049	PCI/L	TR1	J	0.018	0.040	V1
GS40	02D0002-003	09/08/2001	REAL	URANIUM-238	1.790	PCI/L	TR1		0.019	0.437	V1
GS41	01D0737-010	04/23/2001	REAL	AMERICIUM-241	0.019	PCI/L	TR1	U	0.027	0.026	V1
GS41	01D0737-010	04/23/2001	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.020	0.020	V1
GS41	01D0737-010	04/23/2001	REAL	URANIUM-233,-234	0.102	PCI/L	TR1	J	0.021	0.057	V1
GS41	01D0737-010	04/23/2001	REAL	URANIUM-235	-0.002	PCI/L	TR1	U	0.021	0.002	V1
GS41	01D0737-010	04/23/2001	REAL	URANIUM-238	0.089	PCI/L	TR1	J	0.024	0.053	V1
GS41	01D0790-008	05/04/2001	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.020	0.015	V1
GS41	01D0790-008	05/04/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.017	0.013	V1
GS43	01D0692-004	10/16/2000	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.024	0.003	V1
GS43	01D0692-004	10/16/2000	REAL	PLUTONIUM-239/240	0.025	PCI/L	TR1	J	0.022	0.031	V1
GS43	01D0692-004	10/16/2000	REAL	URANIUM-233,-234	7.250	PCI/L	TR1		0.023	1.690	V1
GS43	01D0692-004	10/16/2000	REAL	URANIUM-235	0.277	PCI/L	TR1	J	0.020	0.127	V1
GS43	01D0692-004	10/16/2000	REAL	URANIUM-238	2.360	PCI/L	TR1		0.024	0.583	V1
GS43	01D0790-009	04/16/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.017	0.003	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS43	01D0790-009	04/16/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.015	0.015	V1
GS43	01D0790-009	04/16/2001	REAL	URANIUM-233,-234	3.690	PCI/L	TR1		0.016	0.846	V1
GS43	01D0790-009	04/16/2001	REAL	URANIUM-235	0.138	PCI/L	TR1	J	0.013	0.067	V1
GS43	01D0790-009	04/16/2001	REAL	URANIUM-238	1.350	PCI/L	TR1		0.017	0.329	V1
GS43	01D0800-001	05/05/2001	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.021	0.016	V1
GS43	01D0800-001	05/05/2001	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.023	0.022	V1
GS43	01D0800-001	05/05/2001	REAL	URANIUM-233,-234	6.540	PCI/L	TR1		0.020	1.500	V1
GS43	01D0800-001	05/05/2001	REAL	URANIUM-235	0.265	PCI/L	TR1	J	0.017	0.118	V1
GS43	01D0800-001	05/05/2001	REAL	URANIUM-238	2.070	PCI/L	TR1		0.020	0.504	V1
GS43	01D0861-002	05/07/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.025	0.014	V1
GS43	01D0861-002	05/07/2001	REAL	PLUTONIUM-239/240	-0.006	PCI/L	TR1	U	0.025	0.020	V1
GS43	01D0861-002	05/07/2001	REAL	URANIUM-233,-234	17.900	PCI/L	TR1		0.022	4.060	V1
GS43	01D0861-002	05/07/2001	REAL	URANIUM-235	0.538	PCI/L	TR1	J	0.019	0.213	V1
GS43	01D0861-002	05/07/2001	REAL	URANIUM-238	4.650	PCI/L	TR1		0.024	1.090	V1
GS43	01D1083-006	05/21/2001	REAL	AMERICIUM-241	0.011	PCI/L	TR1	U	0.018	0.017	V1
GS43	01D1083-006	05/21/2001	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.018	0.010	V1
GS43	01D1083-006	05/21/2001	REAL	URANIUM-233,-234	4.840	PCI/L	TR1		0.022	1.110	V1
GS43	01D1083-006	05/21/2001	REAL	URANIUM-235	0.206	PCI/L	TR1	J	0.017	0.095	V1
GS43	01D1083-006	05/21/2001	REAL	URANIUM-238	1.040	PCI/L	TR1		0.019	0.270	V1
GS44	01D0199-002	10/04/2000	REAL	AMERICIUM-241	0.009	PCI/L	TR1	J	0.008	0.009	V
GS44	01D0199-002	10/04/2000	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	J	0.007	0.010	V
GS44	01D0199-002	10/04/2000	REAL	TRITIUM	-6	PCI/L	TR1	U	280	150	V
GS44	01D0199-002	10/04/2000	REAL	URANIUM-233,-234	1.400	PCI/L	TR1		0.006	0.078	V
GS44	01D0199-002	10/04/2000	REAL	URANIUM-235	0.045	PCI/L	TR1	J	0.005	0.014	V
GS44	01D0199-002	10/04/2000	REAL	URANIUM-238	1.100	PCI/L	TR1		0.010	0.068	V
GS44	01D0289-001	10/30/2000	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.010	0.009	V1
GS44	01D0289-001	10/30/2000	REAL	PLUTONIUM-239/240	-0.008	PCI/L	TR1	U	0.007	0.007	V1
GS44	01D0289-001	10/30/2000	REAL	TRITIUM	33	PCI/L	TR1	U	260	150	V
GS44	01D0289-001	10/30/2000	REAL	URANIUM-233,-234	2.100	PCI/L	TR1		0.009	0.110	V1
GS44	01D0289-001	10/30/2000	REAL	URANIUM-235	0.069	PCI/L	TR1	J	0.006	0.021	V1
GS44	01D0289-001	10/30/2000	REAL	URANIUM-238	1.500	PCI/L	TR1		0.012	0.096	V1
GS44	01D0548-007	02/23/2001	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.023	0.012	V1
GS44	01D0548-007	02/23/2001	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.014	0.010	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS44	01D0548-007	02/23/2001	REAL	TRITIUM	15	PCI/L	TR1	U	282	158	V1
GS44	01D0548-007	02/23/2001	REAL	URANIUM-233,-234	2.410	PCI/L	TR1		0.023	0.574	V1
GS44	01D0548-007	02/23/2001	REAL	URANIUM-235	0.061	PCI/L	TR1	J	0.019	0.044	V1
GS44	01D0548-007	02/23/2001	REAL	URANIUM-238	1.990	PCI/L	TR1		0.020	0.482	V1
GS44	01D0684-005	03/13/2001	REAL	AMERICIUM-241	0.064	PCI/L	TR1		0.024	0.044	V1
GS44	01D0684-005	03/13/2001	REAL	PLUTONIUM-239/240	0.054	PCI/L	TR1		0.018	0.036	V1
GS44	01D0684-005	03/13/2001	REAL	TRITIUM	-171	PCI/L	TR1	U	216	115	V1
GS44	01D0684-005	03/13/2001	REAL	URANIUM-233,-234	1.320	PCI/L	TR1		0.018	0.334	V1
GS44	01D0684-005	03/13/2001	REAL	URANIUM-235	0.038	PCI/L	TR1	J	0.018	0.035	V1
GS44	01D0684-005	03/13/2001	REAL	URANIUM-238	1.320	PCI/L	TR1		0.021	0.333	V1
GS44	01D0704-001	04/06/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.023	0.019	V
GS44	01D0704-001	04/06/2001	REAL	PLUTONIUM-239/240	0.032	PCI/L	TR1		0.016	0.029	V
GS44	01D0704-001	04/06/2001	REAL	TRITIUM	-46	PCI/L	TR1	U	371	200	V1
GS44	01D0704-001	04/06/2001	REAL	URANIUM-233,-234	1.050	PCI/L	TR1		0.017	0.271	V
GS44	01D0704-001	04/06/2001	REAL	URANIUM-235	0.010	PCI/L	TR1	U	0.016	0.021	V
GS44	01D0704-001	04/06/2001	REAL	URANIUM-238	0.772	PCI/L	TR1	J	0.020	0.208	V
GS44	01D0753-003	04/18/2001	REAL	AMERICIUM-241	0.021	PCI/L	TR1	U	0.023	0.024	V1
GS44	01D0753-003	04/18/2001	REAL	PLUTONIUM-239/240	0.020	PCI/L	TR1	J	0.019	0.022	V1
GS44	01D0753-003	04/18/2001	REAL	TRITIUM	0	PCI/L	TR1	U	317	178	V
GS44	01D0776-010	04/26/2001	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0.024	0.023	V1
GS44	01D0776-010	04/26/2001	REAL	PLUTONIUM-239/240	0.032	PCI/L	TR1		0.019	0.031	V1
GS44	01D0776-010	04/26/2001	REAL	TRITIUM	-91	PCI/L	TR1	U	301	162	V1
GS44	01D0776-010	04/26/2001	REAL	URANIUM-233,-234	0.982	PCI/L	TR1	J	0.016	0.254	V1
GS44	01D0776-010	04/26/2001	REAL	URANIUM-235	0.018	PCI/L	TR1	J	0.015	0.023	V1
GS44	01D0776-010	04/26/2001	REAL	URANIUM-238	0.790	PCI/L	TR1	J	0.019	0.211	V1
GS44	01D0790-010	05/04/2001	REAL	AMERICIUM-241	0.018	PCI/L	TR1	J	0.018	0.019	V1
GS44	01D0790-010	05/04/2001	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.017	0.017	V1
GS44	01D0790-010	05/04/2001	REAL	TRITIUM	-158	PCI/L	TR1	U	313	164	V1
GS44	01D0790-010	05/04/2001	REAL	URANIUM-233,-234	0.311	PCI/L	TR1	J	0.016	0.097	V1
GS44	01D0790-010	05/04/2001	REAL	URANIUM-235	0.012	PCI/L	TR1	U	0.013	0.016	V1
GS44	01D0790-010	05/04/2001	REAL	URANIUM-238	0.284	PCI/L	TR1	J	0.016	0.091	V1
GS44	01D0887-003	05/05/2001	REAL	AMERICIUM-241	0.038	PCI/L	TR1		0.022	0.033	V1
GS44	01D0887-003	05/05/2001	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.017	0.016	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS44	01D0887-003	05/05/2001	REAL	TRITIUM	-122	PCI/L	TR1	U	329	170	V
GS44	01D0887-003	05/05/2001	REAL	URANIUM-233,-234	2.770	PCI/L	TR1		0.021	0.659	V1
GS44	01D0887-003	05/05/2001	REAL	URANIUM-235	0.139	PCI/L	TR1	J	0.018	0.075	V1
GS44	01D0887-003	05/05/2001	REAL	URANIUM-238	2.020	PCI/L	TR1		0.020	0.494	V1
GS44	01D1011-005	05/24/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.017	0.009	V1
GS44	01D1011-005	05/24/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.018	0.002	V1
GS44	01D1011-005	05/24/2001	REAL	TRITIUM	-134	PCI/L	TR1	U	297	159	
GS44	01D1011-005	05/24/2001	REAL	URANIUM-233,-234	2.530	PCI/L	TR1		0.021	0.597	V1
GS44	01D1011-005	05/24/2001	REAL	URANIUM-235	0.109	PCI/L	TR1	J	0.016	0.061	V1
GS44	01D1011-005	05/24/2001	REAL	URANIUM-238	1.820	PCI/L	TR1		0.019	0.440	V1
GS44	01D1097-002	06/28/2001	REAL	AMERICIUM-241	0.026	PCI/L	TR1	J	0.018	0.026	V1
GS44	01D1097-002	06/28/2001	REAL	PLUTONIUM-239/240	0.055	PCI/L	TR1		0.021	0.042	V1
GS44	01D1097-002	06/28/2001	REAL	TRITIUM	28	PCI/L	TR1		180	100	V1
GS44	01D1097-002	06/28/2001	REAL	URANIUM-233,-234	0.925	PCI/L	TR1	J	0.025	0.258	V1
GS44	01D1097-002	06/28/2001	REAL	URANIUM-235	0.020	PCI/L	TR1	U	0.021	0.027	V1
GS44	01D1097-002	06/28/2001	REAL	URANIUM-238	0.754	PCI/L	TR1	J	0.022	0.218	V1
GS44	01D1210-001	07/16/2001	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0.020	0.020	V1
GS44	01D1210-001	07/16/2001	REAL	PLUTONIUM-239/240	0.029	PCI/L	TR1	J	0.014	0.023	V1
GS44	01D1210-001	07/16/2001	REAL	TRITIUM	100	PCI/L	TR1		175	107	V1
GS44	01D1210-001	07/16/2001	REAL	URANIUM-233,-234	2.830	PCI/L	TR1		0.022	0.670	V1
GS44	01D1210-001	07/16/2001	REAL	URANIUM-235	0.135	PCI/L	TR1	J	0.018	0.074	V1
GS44	01D1210-001	07/16/2001	REAL	URANIUM-238	2.110	PCI/L	TR1		0.019	0.510	V1
GS44	01D1357-004	08/06/2001	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.018	0.018	V1
GS44	01D1357-004	08/06/2001	REAL	PLUTONIUM-239/240	0.031	PCI/L	TR1		0.017	0.034	V1
GS44	01D1357-004	08/06/2001	REAL	TRITIUM	100	PCI/L	TR1	U	190	110	
GS44	01D1357-004	08/06/2001	REAL	URANIUM-233,-234	1.050	PCI/L	TR1		0.026	0.284	V1
GS44	01D1357-004	08/06/2001	REAL	URANIUM-235	0.019	PCI/L	TR1	U	0.021	0.026	V1
GS44	01D1357-004	08/06/2001	REAL	URANIUM-238	0.781	PCI/L	TR1	J	0.022	0.222	V1
GS44	02D0002-004	08/27/2001	REAL	AMERICIUM-241	0.019	PCI/L	TR1	J	0.019	0.023	V1
GS44	02D0002-004	08/27/2001	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.017	0.015	V1
GS44	02D0002-004	08/27/2001	REAL	TRITIUM	-230	PCI/L	TR1	U	269	140	V1
GS44	02D0002-004	08/27/2001	REAL	URANIUM-233,-234	0.714	PCI/L	TR1	J	0.023	0.200	V1
GS44	02D0002-004	08/27/2001	REAL	URANIUM-235	0.026	PCI/L	TR1	J	0.019	0.030	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS44	02D0002-004	08/27/2001	REAL	URANIUM-238	0.500	PCI/L	TR1	J	0.020	0.150	V1
GS49	01D0548-008	02/11/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.022	0.014	V1
GS49	01D0548-008	02/11/2001	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.015	0.010	V1
GS49	01D0548-008	02/11/2001	REAL	TRITIUM	77	PCI/L	TR1	U	283	164	V1
GS49	01D0548-008	02/11/2001	REAL	URANIUM-233,-234	0.102	PCI/L	TR1	J	0.022	0.052	V1
GS49	01D0548-008	02/11/2001	REAL	URANIUM-235	-0.003	PCI/L	TR1	U	0.019	0.013	V1
GS49	01D0548-008	02/11/2001	REAL	URANIUM-238	0.100	PCI/L	TR1	J	0.020	0.050	V1
GS49	01D0684-004	03/13/2001	REAL	AMERICIUM-241	0.018	PCI/L	TR1	U	0.023	0.022	V1
GS49	01D0684-004	03/13/2001	REAL	PLUTONIUM-239/240	0.021	PCI/L	TR1	U	0.021	0.026	V1
GS49	01D0684-004	03/13/2001	REAL	TRITIUM	-78	PCI/L	TR1	U	218	120	V1
GS49	01D0684-004	03/13/2001	REAL	URANIUM-233,-234	0.163	PCI/L	TR1	J	0.018	0.069	V1
GS49	01D0684-004	03/13/2001	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.018	0.013	V1
GS49	01D0684-004	03/13/2001	REAL	URANIUM-238	0.103	PCI/L	TR1	J	0.021	0.052	V1
GS49	01D0704-002	04/10/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.029	0.023	V
GS49	01D0704-002	04/10/2001	REAL	PLUTONIUM-239/240	0.031	PCI/L	TR1		0.019	0.032	V
GS49	01D0704-002	04/10/2001	REAL	TRITIUM	15	PCI/L	TR1	U	367	201	V1
GS49	01D0704-002	04/10/2001	REAL	URANIUM-233,-234	0.171	PCI/L	TR1	J	0.021	0.079	V
GS49	01D0704-002	04/10/2001	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.021	0.016	V
GS49	01D0704-002	04/10/2001	REAL	URANIUM-238	0.156	PCI/L	TR1	J	0.025	0.073	V
GS49	01D0790-011	04/20/2001	REAL	AMERICIUM-241	0.036	PCI/L	TR1		0.022	0.031	V1
GS49	01D0790-011	04/20/2001	REAL	PLUTONIUM-239/240	0.031	PCI/L	TR1		0.019	0.034	V1
GS49	01D0790-011	04/20/2001	REAL	TRITIUM	-94	PCI/L	TR1	U	312	167	V1
GS49	01D0790-011	04/20/2001	REAL	URANIUM-233,-234	0.145	PCI/L	TR1	J	0.019	0.065	V1
GS49	01D0790-011	04/20/2001	REAL	URANIUM-235	0.011	PCI/L	TR1	U	0.016	0.018	V1
GS49	01D0790-011	04/20/2001	REAL	URANIUM-238	0.147	PCI/L	TR1	J	0.020	0.065	V1
GS49	01D1097-003	05/05/2001	REAL	AMERICIUM-241	0.050	PCI/L	TR1		0.023	0.040	V1
GS49	01D1097-003	05/05/2001	REAL	PLUTONIUM-239/240	0.079	PCI/L	TR1		0.019	0.046	V1
GS49	01D1097-003	05/05/2001	REAL	TRITIUM	49	PCI/L	TR1		180	100	V1
GS49	01D1097-003	05/05/2001	REAL	URANIUM-233,-234	0.526	PCI/L	TR1	J	0.027	0.174	V1
GS49	01D1097-003	05/05/2001	REAL	URANIUM-235	0.050	PCI/L	TR1	J	0.024	0.046	V1
GS49	01D1097-003	05/05/2001	REAL	URANIUM-238	0.593	PCI/L	TR1	J	0.025	0.189	V1
GS49	02D0299-003	07/25/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.019	0.011	V1
GS49	02D0299-003	07/25/2001	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	J	0.015	0.019	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS49	02D0299-003	07/25/2001	REAL	TRITIUM	0	PCI/L	TR1	U	212	119	V1
GS49	02D0299-003	07/25/2001	REAL	URANIUM-233,-234	0.068	PCI/L	TR1	J	0.025	0.047	V1
GS49	02D0299-003	07/25/2001	REAL	URANIUM-235	-0.009	PCI/L	TR1	U	0.025	0.010	V1
GS49	02D0299-003	07/25/2001	REAL	URANIUM-238	0.084	PCI/L	TR1	J	0.024	0.051	V1
GS50	01D0737-006	04/12/2001	REAL	AMERICIUM-241	0.089	PCI/L	TR1		0.023	0.051	V1
GS50	01D0737-006	04/12/2001	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	0.020	0.021	V1
GS50	01D0737-006	04/12/2001	REAL	URANIUM-233,-234	0.110	PCI/L	TR1	J	0.017	0.054	V1
GS50	01D0737-006	04/12/2001	REAL	URANIUM-235	0.015	PCI/L	TR1	U	0.016	0.020	V1
GS50	01D0737-006	04/12/2001	REAL	URANIUM-238	0.090	PCI/L	TR1	J	0.019	0.048	V1
GS50	01D0790-012	04/23/2001	REAL	AMERICIUM-241	0.180	PCI/L	TR1		0.022	0.078	V1
GS50	01D0790-012	04/23/2001	REAL	PLUTONIUM-239/240	0.197	PCI/L	TR1		0.018	0.082	V1
GS50	01D0790-012	04/23/2001	REAL	URANIUM-233,-234	0.159	PCI/L	TR1	J	0.020	0.069	V1
GS50	01D0790-012	04/23/2001	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.017	0.013	V1
GS50	01D0790-012	04/23/2001	REAL	URANIUM-238	0.182	PCI/L	TR1	J	0.020	0.075	V1
GS50	01D1097-005	05/05/2001	REAL	AMERICIUM-241	0.434	PCI/L	TR1		0.019	0.143	V1
GS50	01D1097-006	05/05/2001	DUP	AMERICIUM-241	0.449	PCI/L	TR1		0.018	0.143	V1
GS50	01D1097-005	05/05/2001	REAL	PLUTONIUM-239/240	0.241	PCI/L	TR1		0.017	0.090	V1
GS50	01D1097-006	05/05/2001	DUP	PLUTONIUM-239/240	0.208	PCI/L	TR1		0.016	0.079	V1
GS50	01D1097-005	05/05/2001	REAL	URANIUM-233,-234	0.207	PCI/L	TR1	J	0.021	0.080	V1
GS50	01D1097-006	05/05/2001	DUP	URANIUM-233,-234	0.240	PCI/L	TR1	J	0.022	0.090	V1
GS50	01D1097-005	05/05/2001	REAL	URANIUM-235	0.003	PCI/L	TR1	U	0.018	0.012	V1
GS50	01D1097-006	05/05/2001	DUP	URANIUM-235	0.004	PCI/L	TR1	U	0.019	0.013	V1
GS50	01D1097-005	05/05/2001	REAL	URANIUM-238	0.205	PCI/L	TR1	J	0.019	0.078	V1
GS50	01D1097-006	05/05/2001	DUP	URANIUM-238	0.217	PCI/L	TR1	J	0.020	0.084	V1
SW022	01D0592-003	10/05/2000	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.024	0.004	V
SW022	01D0592-003	10/05/2000	REAL	PLUTONIUM-239/240	0.031	PCI/L	TR1		0.015	0.025	V
SW022	01D0592-003	10/05/2000	REAL	URANIUM-233,-234	0.314	PCI/L	TR1	J	0.022	0.106	V
SW022	01D0592-003	10/05/2000	REAL	URANIUM-235	0.012	PCI/L	TR1	U	0.018	0.021	V
SW022	01D0592-003	10/05/2000	REAL	URANIUM-238	0.254	PCI/L	TR1	J	0.020	0.091	V
SW022	01D0189-003	10/22/2000	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.009	0.012	V
SW022	01D0189-003	10/22/2000	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	J	0.008	0.009	V
SW022	01D0189-003	10/22/2000	REAL	URANIUM-233,-234	0.180	PCI/L	TR1	J	0.007	0.031	V
SW022	01D0189-003	10/22/2000	REAL	URANIUM-235	0.010	PCI/L	TR1	J	0.006	0.008	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW022	01D0189-003	10/22/2000	REAL	URANIUM-238	0.100	PCI/L	TR1	J	0.008	0.023	V
SW022	01D0684-009	03/17/2001	REAL	AMERICIUM-241	0.041	PCI/L	TR1		0.023	0.033	V1
SW022	01D0684-009	03/17/2001	REAL	PLUTONIUM-239/240	0.144	PCI/L	TR1		0.019	0.068	V1
SW022	01D0684-009	03/17/2001	REAL	URANIUM-233,-234	0.601	PCI/L	TR1	J	0.019	0.176	V1
SW022	01D0684-009	03/17/2001	REAL	URANIUM-235	0.043	PCI/L	TR1	J	0.018	0.037	V1
SW022	01D0684-009	03/17/2001	REAL	URANIUM-238	0.527	PCI/L	TR1	J	0.022	0.159	V1
SW022	01D0692-003	04/12/2001	REAL	AMERICIUM-241	0.025	PCI/L	TR1	J	0.021	0.027	V1
SW022	01D0692-003	04/12/2001	REAL	PLUTONIUM-239/240	0.150	PCI/L	TR1		0.017	0.067	V1
SW022	01D0692-003	04/12/2001	REAL	URANIUM-233,-234	0.344	PCI/L	TR1	J	0.021	0.115	V1
SW022	01D0692-003	04/12/2001	REAL	URANIUM-235	0.029	PCI/L	TR1	J	0.018	0.030	V1
SW022	01D0692-003	04/12/2001	REAL	URANIUM-238	0.451	PCI/L	TR1	J	0.021	0.139	V1
SW022	01D0737-003	04/21/2001	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.023	0.021	V1
SW022	01D0737-003	04/21/2001	REAL	PLUTONIUM-239/240	0.094	PCI/L	TR1		0.023	0.056	V1
SW022	01D0737-003	04/21/2001	REAL	URANIUM-233,-234	0.266	PCI/L	TR1	J	0.017	0.094	V1
SW022	01D0737-003	04/21/2001	REAL	URANIUM-235	0.025	PCI/L	TR1	J	0.017	0.028	V1
SW022	01D0737-003	04/21/2001	REAL	URANIUM-238	0.276	PCI/L	TR1	J	0.019	0.096	V1
SW022	01D0776-006	04/23/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.021	0.011	V1
SW022	01D0776-006	04/23/2001	REAL	PLUTONIUM-239/240	0.081	PCI/L	TR1		0.016	0.044	V1
SW022	01D0776-006	04/23/2001	REAL	URANIUM-233,-234	0.327	PCI/L	TR1	J	0.019	0.112	V1
SW022	01D0776-006	04/23/2001	REAL	URANIUM-235	0.037	PCI/L	TR1	J	0.017	0.034	V1
SW022	01D0776-006	04/23/2001	REAL	URANIUM-238	0.286	PCI/L	TR1	J	0.021	0.102	V1
SW022	01D0790-013	05/04/2001	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.023	0.021	V1
SW022	01D0790-021	05/04/2001	DUP	AMERICIUM-241	0.053	PCI/L	TR1		0.025	0.041	V1
SW022	01D0790-013	05/04/2001	REAL	PLUTONIUM-239/240	0.068	PCI/L	TR1		0.019	0.044	V1
SW022	01D0790-021	05/04/2001	DUP	PLUTONIUM-239/240	0.080	PCI/L	TR1		0.020	0.052	V1
SW022	01D0790-013	05/04/2001	REAL	URANIUM-233,-234	0.303	PCI/L	TR1	J	0.019	0.102	V1
SW022	01D0790-021	05/04/2001	DUP	URANIUM-233,-234	0.206	PCI/L	TR1	J	0.019	0.079	V1
SW022	01D0790-013	05/04/2001	REAL	URANIUM-235	0.014	PCI/L	TR1	U	0.016	0.021	V1
SW022	01D0790-021	05/04/2001	DUP	URANIUM-235	0.020	PCI/L	TR1	J	0.016	0.025	V1
SW022	01D0790-013	05/04/2001	REAL	URANIUM-238	0.324	PCI/L	TR1	J	0.019	0.107	V1
SW022	01D0790-021	05/04/2001	DUP	URANIUM-238	0.314	PCI/L	TR1	J	0.019	0.105	V1
SW022	01D0861-005	05/05/2001	REAL	AMERICIUM-241	0.023	PCI/L	TR1	J	0.020	0.024	V1
SW022	01D0861-005	05/05/2001	REAL	PLUTONIUM-239/240	0.096	PCI/L	TR1		0.020	0.058	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW022	01D0861-005	05/05/2001	REAL	URANIUM-233,-234	0.474	PCI/L	TR1	J	0.020	0.146	V1
SW022	01D0861-005	05/05/2001	REAL	URANIUM-235	0.025	PCI/L	TR1	J	0.017	0.028	V1
SW022	01D0861-005	05/05/2001	REAL	URANIUM-238	0.590	PCI/L	TR1	J	0.022	0.173	V1
SW022	01D1058-004	05/21/2001	REAL	AMERICIUM-241	0.039	PCI/L	TR1		0.017	0.030	V1
SW022	01D1058-004	05/21/2001	REAL	PLUTONIUM-239/240	0.100	PCI/L	TR1		0.019	0.057	V1
SW022	01D1058-004	05/21/2001	REAL	URANIUM-233,-234	0.300	PCI/L	TR1	J	0.022	0.105	V1
SW022	01D1058-004	05/21/2001	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.018	0.015	V1
SW022	01D1058-004	05/21/2001	REAL	URANIUM-238	0.309	PCI/L	TR1	J	0.020	0.107	V1
SW022	01D1083-008	07/11/2001	REAL	AMERICIUM-241	0.043	PCI/L	TR1		0.017	0.031	V1
SW022	01D1083-008	07/11/2001	REAL	PLUTONIUM-239/240	0.147	PCI/L	TR1		0.017	0.064	V1
SW022	01D1083-008	07/11/2001	REAL	URANIUM-233,-234	0.508	PCI/L	TR1	J	0.025	0.158	V1
SW022	01D1083-008	07/11/2001	REAL	URANIUM-235	0.026	PCI/L	TR1	J	0.020	0.030	V1
SW022	01D1083-008	07/11/2001	REAL	URANIUM-238	0.416	PCI/L	TR1	J	0.022	0.136	V1
SW022	01D1304-001	07/15/2001	REAL	AMERICIUM-241	0.033	PCI/L	TR1		0.019	0.030	V1
SW022	01D1304-001	07/15/2001	REAL	PLUTONIUM-239/240	0.120	PCI/L	TR1		0.017	0.057	V1
SW022	01D1304-001	07/15/2001	REAL	URANIUM-233,-234	0.252	PCI/L	TR1	J	0.023	0.095	V1
SW022	01D1304-001	07/15/2001	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.019	0.014	V1
SW022	01D1304-001	07/15/2001	REAL	URANIUM-238	0.211	PCI/L	TR1	J	0.021	0.084	V1
SW022	01D1387-007	08/14/2001	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0.019	0.020	V
SW022	01D1387-007	08/14/2001	REAL	PLUTONIUM-239/240	0.036	PCI/L	TR1		0.015	0.028	V
SW022	01D1387-007	08/14/2001	REAL	URANIUM-233,-234	0.184	PCI/L	TR1	J	0.023	0.074	V
SW022	01D1387-007	08/14/2001	REAL	URANIUM-235	0.014	PCI/L	TR1	U	0.018	0.021	V
SW022	01D1387-007	08/14/2001	REAL	URANIUM-238	0.271	PCI/L	TR1	J	0.020	0.094	V
SW022	02D0361-001	09/13/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.018	0.011	
SW022	02D0361-001	09/13/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.015	0.011	
SW022	02D0361-001	09/13/2001	REAL	URANIUM-233,-234	0.535	PCI/L	TR1	J	0.024	0.162	
SW022	02D0361-001	09/13/2001	REAL	URANIUM-235	0.023	PCI/L	TR1	J	0.023	0.028	
SW022	02D0361-001	09/13/2001	REAL	URANIUM-238	0.575	PCI/L	TR1	J	0.023	0.170	
SW027	01D0684-010	03/14/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.023	0.012	V1
SW027	01D0684-010	03/14/2001	REAL	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0.018	0.004	V1
SW027	01D0684-010	03/14/2001	REAL	URANIUM-233,-234	0.940	PCI/L	TR1	J	0.017	0.247	V1
SW027	01D0684-010	03/14/2001	REAL	URANIUM-235	0.060	PCI/L	TR1	J	0.017	0.043	V1
SW027	01D0684-010	03/14/2001	REAL	URANIUM-238	1.210	PCI/L	TR1		0.020	0.307	V1

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SW027	01D0692-007	04/12/2001	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.019	0.014	V1
SW027	01D0692-007	04/12/2001	REAL	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.020	0.020	V1
SW027	01D0692-007	04/12/2001	REAL	URANIUM-233,-234	0.645	PCI/L	TR1	J	0.025	0.198	V1
SW027	01D0692-007	04/12/2001	REAL	URANIUM-235	0.047	PCI/L	TR1	J	0.022	0.043	V1
SW027	01D0692-007	04/12/2001	REAL	URANIUM-238	0.784	PCI/L	TR1	J	0.026	0.230	V1
SW027	01D0737-004	04/16/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.024	0.014	V1
SW027	01D0737-004	04/16/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.019	0.016	V1
SW027	01D0737-004	04/16/2001	REAL	URANIUM-233,-234	0.584	PCI/L	TR1	J	0.018	0.170	V1
SW027	01D0737-004	04/16/2001	REAL	URANIUM-235	0.023	PCI/L	TR1	J	0.017	0.026	V1
SW027	01D0737-004	04/16/2001	REAL	URANIUM-238	0.658	PCI/L	TR1	J	0.020	0.187	V1
SW027	01D0764-002	04/23/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.022	0.019	V1
SW027	01D0764-002	04/23/2001	REAL	PLUTONIUM-239/240	0.037	PCI/L	TR1		0.018	0.032	V1
SW027	01D0764-002	04/23/2001	REAL	URANIUM-233,-234	0.531	PCI/L	TR1	J	0.017	0.154	V1
SW027	01D0764-002	04/23/2001	REAL	URANIUM-235	0.018	PCI/L	TR1	J	0.016	0.024	V1
SW027	01D0764-002	04/23/2001	REAL	URANIUM-238	0.600	PCI/L	TR1	J	0.019	0.169	V1
SW027	01D0790-015	05/01/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.020	0.010	V1
SW027	01D0790-015	05/01/2001	REAL	PLUTONIUM-239/240	0.021	PCI/L	TR1	J	0.017	0.030	V1
SW027	01D0790-015	05/01/2001	REAL	URANIUM-233,-234	0.718	PCI/L	TR1	J	0.019	0.200	V1
SW027	01D0790-015	05/01/2001	REAL	URANIUM-235	0.027	PCI/L	TR1	J	0.016	0.029	V1
SW027	01D0790-015	05/01/2001	REAL	URANIUM-238	0.968	PCI/L	TR1	J	0.019	0.256	V1
SW027	01D0790-014	05/05/2001	REAL	AMERICIUM-241	0.031	PCI/L	TR1		0.023	0.031	V1
SW027	01D1133-001	05/05/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.021	0.002	V1
SW027	01D0790-014	05/05/2001	REAL	PLUTONIUM-239/240	0.119	PCI/L	TR1		0.020	0.065	V1
SW027	01D1133-001	05/05/2001	REAL	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.019	0.020	V1
SW027	01D0790-014	05/05/2001	REAL	URANIUM-233,-234	0.524	PCI/L	TR1	J	0.018	0.153	V1
SW027	01D1133-001	05/05/2001	REAL	URANIUM-233,-234	0.433	PCI/L	TR1	J	0.026	0.145	V1
SW027	01D0790-014	05/05/2001	REAL	URANIUM-235	0.016	PCI/L	TR1	J	0.016	0.021	V1
SW027	01D1133-001	05/05/2001	REAL	URANIUM-235	0.011	PCI/L	TR1	U	0.021	0.029	V1
SW027	01D0790-014	05/05/2001	REAL	URANIUM-238	0.583	PCI/L	TR1	J	0.019	0.167	V1
SW027	01D1133-001	05/05/2001	REAL	URANIUM-238	0.548	PCI/L	TR1	J	0.023	0.172	V1
SW027	01D1387-010	08/09/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.019	0.002	V
SW027	01D1387-010	08/09/2001	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.017	0.015	V
SW027	01D1387-010	08/09/2001	REAL	URANIUM-233,-234	0.220	PCI/L	TR1	J	0.026	0.088	V

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW027	01D1387-010	08/09/2001	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.020	0.014	V
SW027	01D1387-010	08/09/2001	REAL	URANIUM-238	0.204	PCI/L	TR1	J	0.022	0.082	V
SW055	01D1387-001	05/28/2001	REAL	AMERICIUM-241	0.557	PCI/L	TR1		0.019	0.176	V
SW055	01D1387-001	05/28/2001	REAL	PLUTONIUM-239/240	3.160	PCI/L	TR1		0.016	0.783	V
SW055	01D1387-001	05/28/2001	REAL	URANIUM-233,-234	1.520	PCI/L	TR1		0.025	0.383	V
SW055	01D1387-001	05/28/2001	REAL	URANIUM-235	0.028	PCI/L	TR1	J	0.019	0.032	V
SW055	01D1387-001	05/28/2001	REAL	URANIUM-238	1.360	PCI/L	TR1		0.022	0.347	V
SW091	01D0776-011	05/05/2001	REAL	AMERICIUM-241	0.064	PCI/L	TR1		0.023	0.044	V1
SW091	01D0776-011	05/05/2001	REAL	PLUTONIUM-239/240	0.062	PCI/L	TR1		0.017	0.041	V1
SW091	01D0776-011	05/05/2001	REAL	URANIUM-233,-234	0.913	PCI/L	TR1	J	0.018	0.244	V1
SW091	01D0776-011	05/05/2001	REAL	URANIUM-235	0.017	PCI/L	TR1	J	0.017	0.022	V1
SW091	01D0776-011	05/05/2001	REAL	URANIUM-238	0.810	PCI/L	TR1	J	0.021	0.222	V1
SW091	01D1083-009	07/13/2001	REAL	AMERICIUM-241	0.186	PCI/L	TR1		0.020	0.080	V1
SW091	01D1083-009	07/13/2001	REAL	PLUTONIUM-239/240	0.051	PCI/L	TR1		0.019	0.036	V1
SW091	01D1083-009	07/13/2001	REAL	URANIUM-233,-234	0.222	PCI/L	TR1	J	0.026	0.090	V1
SW091	01D1083-009	07/13/2001	REAL	URANIUM-235	0.021	PCI/L	TR1	J	0.020	0.031	V1
SW091	01D1083-009	07/13/2001	REAL	URANIUM-238	0.264	PCI/L	TR1	J	0.022	0.100	V1
SW093	01D0184-002	10/02/2000	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.028	0.014	V1
SW093	01D0184-002	10/02/2000	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.017	0.015	V1
SW093	01D0184-002	10/02/2000	REAL	URANIUM-233,-234	1.240	PCI/L	TR1		0.022	0.313	V1
SW093	01D0184-002	10/02/2000	REAL	URANIUM-235	0.025	PCI/L	TR1	J	0.019	0.031	V1
SW093	01D0184-002	10/02/2000	REAL	URANIUM-238	1.390	PCI/L	TR1		0.019	0.346	V1
SW093	01D0199-003	10/18/2000	REAL	AMERICIUM-241	0.010	PCI/L	TR1	J	0.008	0.010	V
SW093	01D0199-003	10/18/2000	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.007	0.009	V
SW093	01D0199-003	10/18/2000	REAL	URANIUM-233,-234	1.100	PCI/L	TR1		0.007	0.073	V
SW093	01D0199-003	10/18/2000	REAL	URANIUM-235	0.013	PCI/L	TR1	J	0.005	0.009	V
SW093	01D0199-003	10/18/2000	REAL	URANIUM-238	1.300	PCI/L	TR1		0.011	0.077	V
SW093	01D0239-005	10/31/2000	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.009	0.007	V
SW093	01D0239-005	10/31/2000	REAL	PLUTONIUM-239/240	-0.008	PCI/L	TR1	U	0.007	0.009	V
SW093	01D0239-005	10/31/2000	REAL	URANIUM-233,-234	1.400	PCI/L	TR1		0.007	0.080	V
SW093	01D0239-005	10/31/2000	REAL	URANIUM-235	0.034	PCI/L	TR1	J	0.005	0.012	V
SW093	01D0239-005	10/31/2000	REAL	URANIUM-238	1.600	PCI/L	TR1		0.010	0.084	V
SW093	01D0274-003	11/17/2000	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.009	0.011	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	01D0274-003	11/17/2000	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.007	0.005	V1
SW093	01D0274-003	11/17/2000	REAL	URANIUM-233,-234	1.500	PCI/L	TR1		0.007	0.086	V1
SW093	01D0274-003	11/17/2000	REAL	URANIUM-235	0.042	PCI/L	TR1	J	0.005	0.014	V1
SW093	01D0274-003	11/17/2000	REAL	URANIUM-238	1.500	PCI/L	TR1		0.010	0.085	V1
SW093	01D0305-003	12/04/2000	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.010	0.011	V
SW093	01D0305-003	12/04/2000	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.007	0.007	V
SW093	01D0305-003	12/04/2000	REAL	URANIUM-233,-234	0.910	PCI/L	TR1	J	0.006	0.061	V
SW093	01D0305-003	12/04/2000	REAL	URANIUM-235	0.026	PCI/L	TR1	J	0.004	0.010	V
SW093	01D0305-003	12/04/2000	REAL	URANIUM-238	1.100	PCI/L	TR1	J	0.009	0.066	V
SW093	01D0329-002	12/19/2000	REAL	AMERICIUM-241	-0.007	PCI/L	TR1	U	0.026	0.006	V1
SW093	01D0329-002	12/19/2000	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.016	0.004	V1
SW093	01D0329-002	12/19/2000	REAL	URANIUM-233,-234	1.880	PCI/L	TR1		0.023	0.458	V1
SW093	01D0329-002	12/19/2000	REAL	URANIUM-235	0.079	PCI/L	TR1	J	0.020	0.052	V1
SW093	01D0329-002	12/19/2000	REAL	URANIUM-238	1.750	PCI/L	TR1		0.020	0.429	V1
SW093	01D0362-002	01/08/2001	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.023	0.004	V1
SW093	01D0362-002	01/08/2001	REAL	PLUTONIUM-239/240	0.018	PCI/L	TR1	U	0.020	0.021	V1
SW093	01D0362-002	01/08/2001	REAL	URANIUM-233,-234	1.670	PCI/L	TR1		0.022	0.407	V1
SW093	01D0362-002	01/08/2001	REAL	URANIUM-235	0.082	PCI/L	TR1	J	0.019	0.052	V1
SW093	01D0362-002	01/08/2001	REAL	URANIUM-238	1.730	PCI/L	TR1		0.019	0.420	V1
SW093	01D0518-002	02/01/2001	REAL	AMERICIUM-241	0.017	PCI/L	TR1	U	0.024	0.022	V1
SW093	01D0518-002	02/01/2001	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.016	0.010	V1
SW093	01D0518-002	02/01/2001	REAL	URANIUM-233,-234	1.850	PCI/L	TR1		0.022	0.449	V1
SW093	01D0518-002	02/01/2001	REAL	URANIUM-235	0.042	PCI/L	TR1	J	0.019	0.036	V1
SW093	01D0518-002	02/01/2001	REAL	URANIUM-238	1.890	PCI/L	TR1		0.019	0.456	V1
SW093	01D0535-003	02/19/2001	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.026	0.014	V1
SW093	01D0535-003	02/19/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.018	0.005	V1
SW093	01D0535-003	02/19/2001	REAL	URANIUM-233,-234	2.020	PCI/L	TR1		0.024	0.495	V1
SW093	01D0535-003	02/19/2001	REAL	URANIUM-235	0.084	PCI/L	TR1	J	0.020	0.056	V1
SW093	01D0535-003	02/19/2001	REAL	URANIUM-238	1.860	PCI/L	TR1		0.021	0.458	V1
SW093	01D0548-006	02/28/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.028	0.024	V1
SW093	01D0548-006	02/28/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.015	0.017	V1
SW093	01D0548-006	02/28/2001	REAL	URANIUM-233,-234	1.420	PCI/L	TR1		0.024	0.362	V1
SW093	01D0548-006	02/28/2001	REAL	URANIUM-235	0.018	PCI/L	TR1	U	0.020	0.032	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	01D0548-006	02/28/2001	REAL	URANIUM-238	1.320	PCI/L	TR1		0.021	0.338	V1
SW093	01D0620-001	03/12/2001	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.026	0.014	V
SW093	01D0620-001	03/12/2001	REAL	PLUTONIUM-239/240	0.020	PCI/L	TR1	J	0.017	0.021	V
SW093	01D0620-001	03/12/2001	REAL	URANIUM-233,-234	1.090	PCI/L	TR1		0.021	0.277	V
SW093	01D0620-001	03/12/2001	REAL	URANIUM-235	0.029	PCI/L	TR1	J	0.017	0.028	V
SW093	01D0620-001	03/12/2001	REAL	URANIUM-238	1.200	PCI/L	TR1		0.019	0.301	V
SW093	01D0646-003	03/20/2001	REAL	AMERICIUM-241	0.026	PCI/L	TR1	J	0.026	0.028	V
SW093	01D0646-003	03/20/2001	REAL	PLUTONIUM-239/240	0.022	PCI/L	TR1	J	0.018	0.030	V
SW093	01D0646-003	03/20/2001	REAL	URANIUM-233,-234	1.280	PCI/L	TR1		0.021	0.322	V
SW093	01D0646-003	03/20/2001	REAL	URANIUM-235	0.053	PCI/L	TR1	J	0.017	0.039	V
SW093	01D0646-003	03/20/2001	REAL	URANIUM-238	1.280	PCI/L	TR1		0.020	0.320	V
SW093	01D0664-001	03/27/2001	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.023	0.015	V1
SW093	01D0664-001	03/27/2001	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.016	0.001	V1
SW093	01D0664-001	03/27/2001	REAL	URANIUM-233,-234	1.200	PCI/L	TR1		0.021	0.304	V1
SW093	01D0664-001	03/27/2001	REAL	URANIUM-235	0.025	PCI/L	TR1	J	0.017	0.027	V1
SW093	01D0664-001	03/27/2001	REAL	URANIUM-238	1.050	PCI/L	TR1		0.020	0.270	V1
SW093	01D0692-006	04/02/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.025	0.013	V1
SW093	01D0692-006	04/02/2001	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.019	0.019	V1
SW093	01D0692-006	04/02/2001	REAL	URANIUM-233,-234	0.779	PCI/L	TR1	J	0.021	0.216	V1
SW093	01D0692-006	04/02/2001	REAL	URANIUM-235	0.008	PCI/L	TR1	U	0.018	0.019	V1
SW093	01D0692-006	04/02/2001	REAL	URANIUM-238	0.815	PCI/L	TR1	J	0.022	0.223	V1
SW093	01D0704-005	04/12/2001	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.024	0.017	V
SW093	01D0704-005	04/12/2001	REAL	PLUTONIUM-239/240	0.017	PCI/L	TR1	U	0.025	0.030	V
SW093	01D0704-005	04/12/2001	REAL	URANIUM-233,-234	0.834	PCI/L	TR1	J	0.016	0.221	V
SW093	01D0704-005	04/12/2001	REAL	URANIUM-235	0.025	PCI/L	TR1	J	0.016	0.026	V
SW093	01D0704-005	04/12/2001	REAL	URANIUM-238	0.946	PCI/L	TR1	J	0.020	0.246	V
SW093	01D0737-008	04/20/2001	REAL	AMERICIUM-241	0.021	PCI/L	TR1	J	0.021	0.024	V1
SW093	01D0737-008	04/20/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.017	0.016	V1
SW093	01D0737-008	04/20/2001	REAL	URANIUM-233,-234	0.701	PCI/L	TR1	J	0.017	0.192	V1
SW093	01D0737-008	04/20/2001	REAL	URANIUM-235	0.013	PCI/L	TR1	U	0.016	0.021	V1
SW093	01D0737-008	04/20/2001	REAL	URANIUM-238	0.755	PCI/L	TR1	J	0.019	0.204	V1
SW093	01D0776-005	04/24/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.024	0.013	V1
SW093	01D0776-005	04/24/2001	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.018	0.012	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	01D0776-005	04/24/2001	REAL	URANIUM-233,-234	0.969	PCI/L	TR1	J	0.018	0.259	V1
SW093	01D0776-005	04/24/2001	REAL	URANIUM-235	0.043	PCI/L	TR1	J	0.017	0.036	V1
SW093	01D0776-005	04/24/2001	REAL	URANIUM-238	0.992	PCI/L	TR1	J	0.021	0.264	V1
SW093	01D0790-017	05/02/2001	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.022	0.021	V1
SW093	01D0790-017	05/02/2001	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.018	0.021	V1
SW093	01D0790-017	05/02/2001	REAL	URANIUM-233,-234	0.843	PCI/L	TR1	J	0.019	0.226	V1
SW093	01D0790-017	05/02/2001	REAL	URANIUM-235	0.032	PCI/L	TR1	J	0.016	0.031	V1
SW093	01D0790-017	05/02/2001	REAL	URANIUM-238	0.709	PCI/L	TR1	J	0.019	0.196	V1
SW093	01D0790-016	05/05/2001	REAL	AMERICIUM-241	0.022	PCI/L	TR1	U	0.024	0.026	V1
SW093	01D0811-003	05/05/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.023	0.003	V1
SW093	01D0790-016	05/05/2001	REAL	PLUTONIUM-239/240	0.063	PCI/L	TR1		0.021	0.046	V1
SW093	01D0811-003	05/05/2001	REAL	PLUTONIUM-239/240	0.033	PCI/L	TR1		0.018	0.029	V1
SW093	01D0790-016	05/05/2001	REAL	URANIUM-233,-234	0.951	PCI/L	TR1	J	0.021	0.261	V1
SW093	01D0811-003	05/05/2001	REAL	URANIUM-233,-234	1.690	PCI/L	TR1		0.018	0.417	V1
SW093	01D0790-016	05/05/2001	REAL	URANIUM-235	0.027	PCI/L	TR1	J	0.019	0.030	V1
SW093	01D0811-003	05/05/2001	REAL	URANIUM-235	0.093	PCI/L	TR1	J	0.017	0.057	V1
SW093	01D0790-016	05/05/2001	REAL	URANIUM-238	0.786	PCI/L	TR1	J	0.022	0.223	V1
SW093	01D0811-003	05/05/2001	REAL	URANIUM-238	1.690	PCI/L	TR1		0.021	0.417	V1
SW093	01D0868-003	05/14/2001	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0.021	0.019	V1
SW093	01D0868-003	05/14/2001	REAL	PLUTONIUM-239/240	0.012	PCI/L	TR1	U	0.023	0.020	V1
SW093	01D0868-003	05/14/2001	REAL	URANIUM-233,-234	1.080	PCI/L	TR1		0.020	0.283	V1
SW093	01D0868-003	05/14/2001	REAL	URANIUM-235	0.032	PCI/L	TR1	J	0.017	0.032	V1
SW093	01D0868-003	05/14/2001	REAL	URANIUM-238	1.050	PCI/L	TR1		0.022	0.277	V1
SW093	01D0905-002	05/21/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.021	0.011	V1
SW093	01D0905-002	05/21/2001	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.015	0.008	V1
SW093	01D0905-002	05/21/2001	REAL	URANIUM-233,-234	0.979	PCI/L	TR1	J	0.022	0.269	V1
SW093	01D0905-002	05/21/2001	REAL	URANIUM-235	0.040	PCI/L	TR1	J	0.019	0.036	V1
SW093	01D0905-002	05/21/2001	REAL	URANIUM-238	0.962	PCI/L	TR1	J	0.022	0.264	V1
SW093	01D0931-002	06/01/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.023	0.013	V1
SW093	01D0931-002	06/01/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.023	0.002	V1
SW093	01D0931-002	06/01/2001	REAL	URANIUM-233,-234	0.704	PCI/L	TR1	J	0.022	0.203	V1
SW093	01D0931-002	06/01/2001	REAL	URANIUM-235	0.025	PCI/L	TR1	J	0.019	0.028	V1
SW093	01D0931-002	06/01/2001	REAL	URANIUM-238	0.810	PCI/L	TR1	J	0.021	0.227	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	01D0962-004	06/07/2001	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.020	0.003	V1
SW093	01D0962-004	06/07/2001	REAL	PLUTONIUM-239/240	0.018	PCI/L	TR1	J	0.015	0.020	V1
SW093	01D0962-004	06/07/2001	REAL	URANIUM-233,-234	0.838	PCI/L	TR1	J	0.020	0.223	V1
SW093	01D0962-004	06/07/2001	REAL	URANIUM-235	0.039	PCI/L	TR1	J	0.015	0.033	V1
SW093	01D0962-004	06/07/2001	REAL	URANIUM-238	0.740	PCI/L	TR1	J	0.019	0.201	V1
SW093	01D1000-001	06/15/2001	REAL	AMERICIUM-241	-0.006	PCI/L	TR1	U	0.020	0.005	V1
SW093	01D1000-001	06/15/2001	REAL	PLUTONIUM-239/240	0.017	PCI/L	TR1	J	0.017	0.022	V1
SW093	01D1000-001	06/15/2001	REAL	URANIUM-233,-234	0.565	PCI/L	TR1	J	0.023	0.165	V1
SW093	01D1000-001	06/15/2001	REAL	URANIUM-235	0.016	PCI/L	TR1	U	0.017	0.022	V1
SW093	01D1000-001	06/15/2001	REAL	URANIUM-238	0.639	PCI/L	TR1	J	0.020	0.181	V1
SW093	01D1022-003	06/25/2001	REAL	AMERICIUM-241	0.045	PCI/L	TR1		0.018	0.033	V1
SW093	01D1022-003	06/25/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.019	0.002	V1
SW093	01D1022-003	06/25/2001	REAL	URANIUM-233,-234	0.625	PCI/L	TR1	J	0.022	0.179	V1
SW093	01D1022-003	06/25/2001	REAL	URANIUM-235	0.022	PCI/L	TR1	J	0.018	0.025	V1
SW093	01D1022-003	06/25/2001	REAL	URANIUM-238	0.534	PCI/L	TR1	J	0.020	0.157	V1
SW093	01D1027-003	07/02/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.020	0.002	V1
SW093	01D1027-003	07/02/2001	REAL	PLUTONIUM-239/240	0.025	PCI/L	TR1	J	0.019	0.025	V1
SW093	01D1027-003	07/02/2001	REAL	URANIUM-233,-234	0.578	PCI/L	TR1	J	0.020	0.165	V1
SW093	01D1027-003	07/02/2001	REAL	URANIUM-235	0.027	PCI/L	TR1	J	0.016	0.027	V1
SW093	01D1027-003	07/02/2001	REAL	URANIUM-238	0.543	PCI/L	TR1	J	0.019	0.157	V1
SW093	01D1083-003	07/09/2001	REAL	AMERICIUM-241	0.018	PCI/L	TR1	U	0.019	0.022	V1
SW093	01D1083-003	07/09/2001	REAL	PLUTONIUM-239/240	0.019	PCI/L	TR1	J	0.019	0.022	V1
SW093	01D1083-003	07/09/2001	REAL	URANIUM-233,-234	0.530	PCI/L	TR1	J	0.026	0.165	V1
SW093	01D1083-003	07/09/2001	REAL	URANIUM-235	0.027	PCI/L	TR1	J	0.020	0.030	V1
SW093	01D1083-003	07/09/2001	REAL	URANIUM-238	0.404	PCI/L	TR1	J	0.022	0.134	V1
SW093	01D1133-002	07/15/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.022	0.013	V1
SW093	01D1133-002	07/15/2001	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.018	0.015	V1
SW093	01D1133-002	07/15/2001	REAL	URANIUM-233,-234	1.750	PCI/L	TR1		0.024	0.438	V1
SW093	01D1133-002	07/15/2001	REAL	URANIUM-235	0.026	PCI/L	TR1	J	0.019	0.033	V1
SW093	01D1133-002	07/15/2001	REAL	URANIUM-238	1.800	PCI/L	TR1		0.021	0.449	V1
SW093	01D1181-002	07/23/2001	REAL	AMERICIUM-241	-0.005	PCI/L	TR1	U	0.018	0.004	V1
SW093	01D1181-002	07/23/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.011	0.001	V1
SW093	01D1181-002	07/23/2001	REAL	URANIUM-233,-234	1.450	PCI/L	TR1		0.022	0.369	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	01D1181-002	07/23/2001	REAL	URANIUM-235	0.044	PCI/L	TR1	J	0.019	0.040	V1
SW093	01D1181-002	07/23/2001	REAL	URANIUM-238	1.360	PCI/L	TR1		0.020	0.346	V1
SW093	01D1237-005	08/01/2001	REAL	AMERICIUM-241	0.030	PCI/L	TR1		0.020	0.030	V1
SW093	01D1237-005	08/01/2001	REAL	PLUTONIUM-239/240	0.099	PCI/L	TR1		0.017	0.052	V1
SW093	01D1237-005	08/01/2001	REAL	URANIUM-233,-234	0.860	PCI/L	TR1	J	0.025	0.246	V1
SW093	01D1237-005	08/01/2001	REAL	URANIUM-235	0.063	PCI/L	TR1	J	0.022	0.053	V1
SW093	01D1237-005	08/01/2001	REAL	URANIUM-238	0.756	PCI/L	TR1	J	0.024	0.221	V1
SW093	01D1306-005	08/09/2001	REAL	AMERICIUM-241	0.019	PCI/L	TR1	J	0.017	0.022	V1
SW093	01D1306-005	08/09/2001	REAL	PLUTONIUM-239/240	0.023	PCI/L	TR1	J	0.016	0.022	V1
SW093	01D1306-005	08/09/2001	REAL	URANIUM-233,-234	0.843	PCI/L	TR1	J	0.022	0.230	V1
SW093	01D1306-005	08/09/2001	REAL	URANIUM-235	0.024	PCI/L	TR1	J	0.019	0.030	V1
SW093	01D1306-005	08/09/2001	REAL	URANIUM-238	0.917	PCI/L	TR1	J	0.021	0.247	V1
SW093	01D1357-003	08/16/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.020	0.012	V1
SW093	01D1357-003	08/16/2001	REAL	PLUTONIUM-239/240	-0.013	PCI/L	TR1	U	0.016	0.010	V1
SW093	01D1357-003	08/16/2001	REAL	URANIUM-233,-234	1.760	PCI/L	TR1		0.025	0.442	V1
SW093	01D1357-003	08/16/2001	REAL	URANIUM-235	0.039	PCI/L	TR1	J	0.020	0.036	V1
SW093	01D1357-003	08/16/2001	REAL	URANIUM-238	1.890	PCI/L	TR1		0.021	0.471	V1
SW093	01D1387-004	08/27/2001	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.019	0.019	V
SW093	01D1387-004	08/27/2001	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.017	0.015	V
SW093	01D1387-004	08/27/2001	REAL	URANIUM-233,-234	0.968	PCI/L	TR1	J	0.024	0.258	V
SW093	01D1387-004	08/27/2001	REAL	URANIUM-235	0.026	PCI/L	TR1	J	0.019	0.030	V
SW093	01D1387-004	08/27/2001	REAL	URANIUM-238	0.765	PCI/L	TR1	J	0.021	0.211	V
SW093	01D1389-002	09/08/2001	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.018	0.015	V1
SW093	01D1389-002	09/08/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.015	0.001	V1
SW093	01D1389-002	09/08/2001	REAL	URANIUM-233,-234	1.170	PCI/L	TR1		0.022	0.301	V1
SW093	01D1389-002	09/08/2001	REAL	URANIUM-235	0.020	PCI/L	TR1	J	0.018	0.029	V1
SW093	01D1389-002	09/08/2001	REAL	URANIUM-238	1.280	PCI/L	TR1		0.019	0.325	V1
SW093	02D0002-001	09/20/2001	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.019	0.012	V1
SW093	02D0002-001	09/20/2001	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.017	0.016	V1
SW093	02D0002-001	09/20/2001	REAL	URANIUM-233,-234	1.780	PCI/L	TR1		0.023	0.440	V1
SW093	02D0002-001	09/20/2001	REAL	URANIUM-235	0.062	PCI/L	TR1	J	0.019	0.046	V1
SW093	02D0002-001	09/20/2001	REAL	URANIUM-238	1.740	PCI/L	TR1		0.020	0.430	V1
SW119	01D0704-003	04/11/2001	REAL	AMERICIUM-241	0.061	PCI/L	TR1		0.026	0.043	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW119	01D0704-003	04/11/2001	REAL	PLUTONIUM-239/240	0.046	PCI/L	TR1		0.015	0.035	V
SW119	01D0704-003	04/11/2001	REAL	URANIUM-233,-234	1.000	PCI/L	TR1		0.018	0.263	V
SW119	01D0704-003	04/11/2001	REAL	URANIUM-235	0.051	PCI/L	TR1	J	0.017	0.039	V
SW119	01D0704-003	04/11/2001	REAL	URANIUM-238	0.616	PCI/L	TR1	J	0.021	0.176	V
SW119	01D0753-001	04/21/2001	REAL	AMERICIUM-241	0.104	PCI/L	TR1		0.023	0.057	V1
SW119	01D0753-001	04/21/2001	REAL	PLUTONIUM-239/240	0.037	PCI/L	TR1		0.019	0.031	V1
SW119	01D0753-001	04/21/2001	REAL	URANIUM-233,-234	3.510	PCI/L	TR1		0.017	0.813	V1
SW119	01D0753-001	04/21/2001	REAL	URANIUM-235	0.114	PCI/L	TR1	J	0.016	0.062	V1
SW119	01D0753-001	04/21/2001	REAL	URANIUM-238	2.040	PCI/L	TR1		0.019	0.490	V1
SW119	01D0790-018	05/02/2001	REAL	AMERICIUM-241	0.119	PCI/L	TR1		0.022	0.061	V1
SW119	01D0790-018	05/02/2001	REAL	PLUTONIUM-239/240	0.096	PCI/L	TR1		0.021	0.057	V1
SW119	01D0790-018	05/02/2001	REAL	URANIUM-233,-234	1.710	PCI/L	TR1		0.020	0.425	V1
SW119	01D0790-018	05/02/2001	REAL	URANIUM-235	0.043	PCI/L	TR1	J	0.017	0.036	V1
SW119	01D0790-018	05/02/2001	REAL	URANIUM-238	1.130	PCI/L	TR1		0.020	0.295	V1
SW119	01D1097-007	05/05/2001	REAL	AMERICIUM-241	0.447	PCI/L	TR1		0.019	0.148	V1
SW119	01D1097-008	05/05/2001	DUP	AMERICIUM-241	0.320	PCI/L	TR1		0.019	0.113	V1
SW119	01D1097-007	05/05/2001	REAL	PLUTONIUM-239/240	0.273	PCI/L	TR1		0.017	0.096	V1
SW119	01D1097-008	05/05/2001	DUP	PLUTONIUM-239/240	0.326	PCI/L	TR1		0.017	0.110	V1
SW119	01D1097-007	05/05/2001	REAL	URANIUM-233,-234	1.450	PCI/L	TR1		0.021	0.364	V1
SW119	01D1097-008	05/05/2001	DUP	URANIUM-233,-234	1.670	PCI/L	TR1		0.023	0.420	V1
SW119	01D1097-007	05/05/2001	REAL	URANIUM-235	0.040	PCI/L	TR1	J	0.018	0.035	V1
SW119	01D1097-008	05/05/2001	DUP	URANIUM-235	0.081	PCI/L	TR1	J	0.020	0.056	V1
SW119	01D1097-007	05/05/2001	REAL	URANIUM-238	1.080	PCI/L	TR1		0.019	0.279	V1
SW119	01D1097-008	05/05/2001	DUP	URANIUM-238	1.080	PCI/L	TR1		0.021	0.287	V1
SW120	01D0507-001	10/05/2000	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.023	0.011	V1
SW120	01D0507-001	10/05/2000	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.016	0.017	V1
SW120	01D0507-001	10/05/2000	REAL	TRITIUM	250	PCI/L	TR1	U	300	190	V
SW120	01D0507-001	10/05/2000	REAL	URANIUM-233,-234	3.660	PCI/L	TR1		0.022	0.846	V1
SW120	01D0507-001	10/05/2000	REAL	URANIUM-235	0.138	PCI/L	TR1	J	0.019	0.072	V1
SW120	01D0507-001	10/05/2000	REAL	URANIUM-238	2.660	PCI/L	TR1		0.018	0.625	V1
SW120	01D0548-010	02/23/2001	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.023	0.011	V1
SW120	01D0548-010	02/23/2001	REAL	PLUTONIUM-239/240	0.023	PCI/L	TR1	J	0.015	0.028	V1
SW120	01D0548-010	02/23/2001	REAL	TRITIUM	258	PCI/L	TR1	U	280	178	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW120	01D0548-010	02/23/2001	REAL	URANIUM-233,-234	5.940	PCI/L	TR1		0.023	1.360	V1
SW120	01D0548-010	02/23/2001	REAL	URANIUM-235	0.258	PCI/L	TR1	J	0.020	0.116	V1
SW120	01D0548-010	02/23/2001	REAL	URANIUM-238	4.000	PCI/L	TR1		0.021	0.932	V1
SW120	01D0684-002	03/13/2001	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.024	0.017	V1
SW120	01D0684-002	03/13/2001	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.017	0.024	V1
SW120	01D0684-002	03/13/2001	REAL	TRITIUM	16	PCI/L	TR1	U	218	125	V1
SW120	01D0684-002	03/13/2001	REAL	URANIUM-233,-234	4.780	PCI/L	TR1		0.018	1.100	V1
SW120	01D0684-002	03/13/2001	REAL	URANIUM-235	0.229	PCI/L	TR1	J	0.018	0.105	V1
SW120	01D0684-002	03/13/2001	REAL	URANIUM-238	3.250	PCI/L	TR1		0.021	0.763	V1
SW120	01D0704-004	04/11/2001	REAL	AMERICIUM-241	0.031	PCI/L	TR1		0.022	0.029	V
SW120	01D0704-004	04/11/2001	REAL	PLUTONIUM-239/240	0.055	PCI/L	TR1		0.015	0.036	V
SW120	01D0704-004	04/11/2001	REAL	TRITIUM	135	PCI/L	TR1	U	364	214	V1
SW120	01D0704-004	04/11/2001	REAL	URANIUM-233,-234	1.430	PCI/L	TR1		0.017	0.355	V
SW120	01D0704-004	04/11/2001	REAL	URANIUM-235	0.026	PCI/L	TR1	J	0.017	0.027	V
SW120	01D0704-004	04/11/2001	REAL	URANIUM-238	0.984	PCI/L	TR1	J	0.020	0.255	V
SW120	01D0753-004	04/21/2001	REAL	AMERICIUM-241	0.021	PCI/L	TR1	U	0.021	0.024	V1
SW120	01D0753-004	04/21/2001	REAL	PLUTONIUM-239/240	0.116	PCI/L	TR1		0.020	0.061	V1
SW120	01D0753-004	04/21/2001	REAL	TRITIUM	-31	PCI/L	TR1	U	313	173	V
SW120	01D0753-004	04/21/2001	REAL	URANIUM-233,-234	1.260	PCI/L	TR1		0.017	0.319	V1
SW120	01D0753-004	04/21/2001	REAL	URANIUM-235	0.067	PCI/L	TR1	J	0.017	0.045	V1
SW120	01D0753-004	04/21/2001	REAL	URANIUM-238	0.899	PCI/L	TR1	J	0.020	0.238	V1
SW120	01D0790-019	05/02/2001	REAL	AMERICIUM-241	0.056	PCI/L	TR1		0.022	0.040	V1
SW120	01D0790-019	05/02/2001	REAL	PLUTONIUM-239/240	0.096	PCI/L	TR1		0.017	0.053	V1
SW120	01D0790-019	05/02/2001	REAL	TRITIUM	0	PCI/L	TR1	U	300	168	V1
SW120	01D0790-019	05/02/2001	REAL	URANIUM-233,-234	1.160	PCI/L	TR1		0.019	0.299	V1
SW120	01D0790-019	05/02/2001	REAL	URANIUM-235	0.017	PCI/L	TR1	J	0.017	0.022	V1
SW120	01D0790-019	05/02/2001	REAL	URANIUM-238	0.757	PCI/L	TR1	J	0.020	0.209	V1
SW120	01D1097-004	05/05/2001	REAL	AMERICIUM-241	0.336	PCI/L	TR1		0.020	0.120	V1
SW120	01D1097-004	05/05/2001	REAL	PLUTONIUM-239/240	1.160	PCI/L	TR1		0.018	0.312	V1
SW120	01D1097-004	05/05/2001	REAL	TRITIUM	49	PCI/L	TR1		180	100	V1
SW120	01D1097-004	05/05/2001	REAL	URANIUM-233,-234	1.250	PCI/L	TR1		0.022	0.320	V1
SW120	01D1097-004	05/05/2001	REAL	URANIUM-235	0.028	PCI/L	TR1	J	0.018	0.029	V1
SW120	01D1097-004	05/05/2001	REAL	URANIUM-238	0.804	PCI/L	TR1	J	0.019	0.219	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW120	01D1388-001	08/09/2001	REAL	AMERICIUM-241	0.050	PCI/L	TR1		0.017	0.034	V1
SW120	01D1388-001	08/09/2001	REAL	PLUTONIUM-239/240	0.136	PCI/L	TR1		0.028	0.077	V1
SW120	01D1388-001	08/09/2001	REAL	TRITIUM	70	PCI/L	TR1	U	180	110	V1
SW120	01D1388-001	08/09/2001	REAL	URANIUM-233,-234	0.643	PCI/L	TR1	J	0.025	0.191	V1
SW120	01D1388-001	08/09/2001	REAL	URANIUM-235	0.020	PCI/L	TR1	U	0.021	0.031	V1
SW120	01D1388-001	08/09/2001	REAL	URANIUM-238	0.403	PCI/L	TR1	J	0.023	0.133	V1
SW120	02D0724-002	09/13/2001	REAL	AMERICIUM-241	0.054	PCI/L	TR1		0.023	0.042	
SW120	02D0724-002	09/13/2001	REAL	PLUTONIUM-239/240	0.026	PCI/L	TR1	J	0.021	0.028	
SW120	02D0724-002	09/13/2001	REAL	TRITIUM	56	PCI/L	TR1	U	210	122	
SW120	02D0724-002	09/13/2001	REAL	URANIUM-233,-234	1.400	PCI/L	TR1		0.021	0.354	
SW120	02D0724-002	09/13/2001	REAL	URANIUM-235	0.053	PCI/L	TR1	J	0.021	0.043	
SW120	02D0724-002	09/13/2001	REAL	URANIUM-238	1.010	PCI/L	TR1		0.020	0.266	

Abbreviations

PCI/L = Picocuries per liter

TR1 = First analytical run

Lab Qualifiers (note analyte group)

J = Estimated quantification (Inorganics & radionuclides)

U = Target analyte not detected (all analytes)

Validation/Verification Qualifiers*

(list in order from highest confidence to lowest)

V/V1 = Valid

1 = Unvalidated/Unverified member of TR1-TR2 pair.

Other pair member should be Validated/Verified.

*Validation is a more thorough review of laboratory package than verification.

B.2.2 Metals and Water-Quality Parameters**Table B-2. Metals and Water-Quality Parameter Analytical Data: WY2001.**

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS01	01D0239-006	11/17/2000	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1	U	5.0	J1
GS01	01D0592-007	03/13/2001	REAL	Alkalinity, Total as CaCO3	150.0	MG/L	TR1		5.0	V1
GS01	01D0592-007	03/13/2001	REAL	ALUMINUM	55.00	UG/L	TR1		3.10	V1
GS01	01D0592-007	03/13/2001	REAL	ANTIMONY	0.42	UG/L	TR1	U	0.42	V1
GS01	01D0592-007	03/13/2001	REAL	ARSENIC	0.80	UG/L	TR1	U	0.80	V1
GS01	01D0592-007	03/13/2001	REAL	BARIUM	67.30	UG/L	TR1	B	0.05	V1
GS01	01D0592-007	03/13/2001	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.02	UJ1
GS01	01D0592-007	03/13/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS01	01D0592-007	03/13/2001	REAL	CALCIUM	52800.00	UG/L	TR1		2.80	V1
GS01	01D0592-007	03/13/2001	REAL	CHLORIDE	44.00	MG/L	TR1		0.50	V1
GS01	01D0592-007	03/13/2001	REAL	CHROMIUM	0.18	UG/L	TR1	U	0.18	V1
GS01	01D0592-007	03/13/2001	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V1
GS01	01D0592-007	03/13/2001	REAL	COPPER	1.20	UG/L	TR1	B	0.15	V1
GS01	01D0592-007	03/13/2001	REAL	FLUORIDE	0.52	MG/L	TR1		0.05	V1
GS01	01D0592-007	03/13/2001	REAL	IRON	26.80	UG/L	TR1	B	4.40	V1
GS01	01D0592-007	03/13/2001	REAL	LEAD	0.55	UG/L	TR1	U	0.55	V1
GS01	01D0592-007	03/13/2001	REAL	LITHIUM	11.40	UG/L	TR1	B	0.05	J1
GS01	01D0592-007	03/13/2001	REAL	MAGNESIUM	13600.00	UG/L	TR1		1.50	V1
GS01	01D0592-007	03/13/2001	REAL	MANGANESE	0.94	UG/L	TR1	B	0.05	V1
GS01	01D0592-007	03/13/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS01	01D0592-007	03/13/2001	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	UJ1
GS01	01D0592-007	03/13/2001	REAL	NICKEL	0.43	UG/L	TR1	B	0.28	V1
GS01	01D0592-007	03/13/2001	REAL	POTASSIUM	1900.00	UG/L	TR1	B	5.20	V1
GS01	01D0592-007	03/13/2001	REAL	Remainder	100	%	TR1		1	V1
GS01	01D0592-007	03/13/2001	REAL	SELENIUM	1.70	UG/L	TR1	B	0.78	J1
GS01	01D0592-007	03/13/2001	REAL	Sieve 1	1	%	TR1	U	1	V1
GS01	01D0592-007	03/13/2001	REAL	Sieve 2	1	%	TR1	U	1	V1
GS01	01D0592-007	03/13/2001	REAL	Sieve 3	1	%	TR1	U	1	V1
GS01	01D0592-007	03/13/2001	REAL	Sieve 4	1	%	TR1	U	1	V1
GS01	01D0592-007	03/13/2001	REAL	Sieve 5	1	%	TR1	U	1	V1
GS01	01D0592-007	03/13/2001	REAL	Sieve 6	1	%	TR1	U	1	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS01	01D0592-007	03/13/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS01	01D0592-007	03/13/2001	REAL	SODIUM	30300.00	UG/L	TR1		0.65	V1
GS01	01D0592-007	03/13/2001	REAL	STRONTIUM	358.00	UG/L	TR1		0.02	V1
GS01	01D0592-007	03/13/2001	REAL	SULFATE	32.0	MG/L	TR1		1.0	V1
GS01	01D0592-007	03/13/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	J1
GS01	01D0592-007	03/13/2001	REAL	TIN	0.58	UG/L	TR1	U	0.58	V1
GS01	01D0592-007	03/13/2001	REAL	TOTAL DISSOLVED SOLIDS	300	MG/L	TR1		10	V1
GS01	01D0592-007	03/13/2001	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1	U	5.0	V1
GS01	01D0592-007	03/13/2001	REAL	VANADIUM	0.37	UG/L	TR1	B	0.15	V1
GS01	01D0592-007	03/13/2001	REAL	ZINC	0.95	UG/L	TR1	B	0.12	V1
GS01	01D0776-012	05/01/2001	REAL	TOTAL SUSPENDED SOLIDS	12.0	MG/L	TR1		5.0	V1
GS01	01D0790-001	05/05/2001	REAL	TOTAL SUSPENDED SOLIDS	33.0	MG/L	TR1		5.0	V1
GS01	01D0975-002	06/15/2001	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1	U	5.0	V1
GS01	01D1000-002	06/20/2001	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1	U	5.0	V1
GS03	01D0236-001	11/13/2000	REAL	TOTAL SUSPENDED SOLIDS	22.0	MG/L	TR1		5.0	V1
GS03	01D0238-001	11/16/2000	REAL	TOTAL SUSPENDED SOLIDS	13.0	MG/L	TR1		5.0	J
GS03	01D0341-001	01/11/2001	REAL	TOTAL SUSPENDED SOLIDS	8.0	MG/L	TR1		5.0	V
GS03	01D0692-009	04/12/2001	REAL	Alkalinity, Total as CaCO3	86.0	MG/L	TR1		5.0	V1
GS03	01D0692-009	04/12/2001	REAL	ALUMINUM	631.00	UG/L	TR1		3.20	V1
GS03	01D0692-009	04/12/2001	REAL	ANTIMONY	0.79	UG/L	TR1	B	0.48	V1
GS03	01D0692-009	04/12/2001	REAL	ARSENIC	1.20	UG/L	TR1	B	0.58	J1
GS03	01D0692-009	04/12/2001	REAL	BARIUM	82.80	UG/L	TR1	B	0.05	V1
GS03	01D0692-009	04/12/2001	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.05	J1
GS03	01D0692-009	04/12/2001	REAL	CADMIUM	0.11	UG/L	TR1	B	0.08	J1
GS03	01D0692-009	04/12/2001	REAL	CALCIUM	55100.00	UG/L	TR1		2.00	V1
GS03	01D0692-009	04/12/2001	REAL	CHLORIDE	260.00	MG/L	TR1		0.50	V1
GS03	01D0692-009	04/12/2001	REAL	CHROMIUM	0.92	UG/L	TR1	B	0.22	V1
GS03	01D0692-009	04/12/2001	REAL	COBALT	1.40	UG/L	TR1	B	0.20	V1
GS03	01D0692-009	04/12/2001	REAL	COPPER	2.70	UG/L	TR1	B	0.18	J1
GS03	01D0692-009	04/12/2001	REAL	FLUORIDE	0.29	MG/L	TR1		0.05	V1
GS03	01D0692-009	04/12/2001	REAL	IRON	532.00	UG/L	TR1		3.92	V1
GS03	01D0692-009	04/12/2001	REAL	LEAD	0.65	UG/L	TR1	U	0.65	V1
GS03	01D0692-009	04/12/2001	REAL	LITHIUM	29.60	UG/L	TR1	B	0.05	J1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS03	01D0692-009	04/12/2001	REAL	MAGNESIUM	15800.00	UG/L	TR1		2.20	V1
GS03	01D0692-009	04/12/2001	REAL	MANGANESE	114.00	UG/L	TR1		0.02	V1
GS03	01D0692-009	04/12/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS03	01D0692-009	04/12/2001	REAL	MOLYBDENUM	2.20	UG/L	TR1	B	0.25	V1
GS03	01D0692-009	04/12/2001	REAL	NICKEL	3.90	UG/L	TR1	B	0.30	V1
GS03	01D0692-009	04/12/2001	REAL	POTASSIUM	9980.00	UG/L	TR1		8.82	J1
GS03	01D0692-009	04/12/2001	REAL	Remainder	100	%	TR1		1	V1
GS03	01D0692-009	04/12/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	UJ1
GS03	01D0692-009	04/12/2001	REAL	Sieve 1	1	%	TR1	U	1	V1
GS03	01D0692-009	04/12/2001	REAL	Sieve 2	1	%	TR1	U	1	V1
GS03	01D0692-009	04/12/2001	REAL	Sieve 3	1	%	TR1	U	1	V1
GS03	01D0692-009	04/12/2001	REAL	Sieve 4	1	%	TR1	U	1	V1
GS03	01D0692-009	04/12/2001	REAL	Sieve 5	1	%	TR1	U	1	V1
GS03	01D0692-009	04/12/2001	REAL	Sieve 6	1	%	TR1	U	1	V1
GS03	01D0692-009	04/12/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS03	01D0692-009	04/12/2001	REAL	SODIUM	100000.00	UG/L	TR1		2.60	J1
GS03	01D0692-009	04/12/2001	REAL	STRONTIUM	389.00	UG/L	TR1		0.02	V1
GS03	01D0692-009	04/12/2001	REAL	SULFATE	35.0	MG/L	TR1		1.0	V1
GS03	01D0692-009	04/12/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	UJ1
GS03	01D0692-009	04/12/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS03	01D0692-009	04/12/2001	REAL	TOTAL DISSOLVED SOLIDS	620	MG/L	TR1		10	V1
GS03	01D0692-009	04/12/2001	REAL	TOTAL SUSPENDED SOLIDS	31.0	MG/L	TR1		5.0	V1
GS03	01D0692-009	04/12/2001	REAL	VANADIUM	2.30	UG/L	TR1	B	0.18	V1
GS03	01D0692-009	04/12/2001	REAL	ZINC	10.20	UG/L	TR1	B	0.08	V1
GS03	01D0737-012	04/22/2001	REAL	Alkalinity, Total as CaCO3	120.0	MG/L	TR1		5.0	V
GS03	01D0737-012	04/22/2001	REAL	ALUMINUM	1200.00	UG/L	TR1		3.20	V1
GS03	01D0737-012	04/22/2001	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V1
GS03	01D0737-012	04/22/2001	REAL	ARSENIC	1.50	UG/L	TR1	B	0.58	J1
GS03	01D0737-012	04/22/2001	REAL	BARIUM	97.60	UG/L	TR1	B	0.05	V1
GS03	01D0737-012	04/22/2001	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.05	UJ1
GS03	01D0737-012	04/22/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS03	01D0737-012	04/22/2001	REAL	CALCIUM	53800.00	UG/L	TR1		2.00	V1
GS03	01D0737-012	04/22/2001	REAL	CHLORIDE	160.00	MG/L	TR1		0.50	V

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS03	01D0737-012	04/22/2001	REAL	CHROMIUM	1.50	UG/L	TR1	B	0.22	V1
GS03	01D0737-012	04/22/2001	REAL	COBALT	0.74	UG/L	TR1	B	0.20	V1
GS03	01D0737-012	04/22/2001	REAL	COPPER	3.00	UG/L	TR1		0.18	V1
GS03	01D0737-012	04/22/2001	REAL	FLUORIDE	0.27	MG/L	TR1		0.05	V
GS03	01D0737-012	04/22/2001	REAL	HARDNESS, TOTAL	200.0	MG/L	TR1		1.0	V
GS03	01D0737-012	04/22/2001	REAL	IRON	899.00	UG/L	TR1		3.90	V1
GS03	01D0737-012	04/22/2001	REAL	LEAD	1.10	UG/L	TR1	B	0.65	J1
GS03	01D0737-012	04/22/2001	REAL	LITHIUM	21.60	UG/L	TR1	B	0.05	J1
GS03	01D0737-012	04/22/2001	REAL	MAGNESIUM	12100.00	UG/L	TR1		2.20	V1
GS03	01D0737-012	04/22/2001	REAL	MANGANESE	104.00	UG/L	TR1		0.02	V1
GS03	01D0737-012	04/22/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS03	01D0737-012	04/22/2001	REAL	MOLYBDENUM	0.90	UG/L	TR1	B	0.25	V1
GS03	01D0737-012	04/22/2001	REAL	NICKEL	2.60	UG/L	TR1	B	0.30	V1
GS03	01D0737-012	04/22/2001	REAL	POTASSIUM	3900.00	UG/L	TR1	B	542.00	V1
GS03	01D0737-012	04/22/2001	REAL	Remainder	100	%	TR1		1	V1
GS03	01D0737-012	04/22/2001	REAL	SELENIUM	0.99	UG/L	TR1	B	0.65	UJ1
GS03	01D0737-012	04/22/2001	REAL	Sieve 1	1	%	TR1	U	1	V1
GS03	01D0737-012	04/22/2001	REAL	Sieve 2	1	%	TR1	U	1	V1
GS03	01D0737-012	04/22/2001	REAL	Sieve 3	1	%	TR1	U	1	V1
GS03	01D0737-012	04/22/2001	REAL	Sieve 4	1	%	TR1	U	1	V1
GS03	01D0737-012	04/22/2001	REAL	Sieve 5	1	%	TR1	U	1	V1
GS03	01D0737-012	04/22/2001	REAL	Sieve 6	1	%	TR1	U	1	V1
GS03	01D0737-012	04/22/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS03	01D0737-012	04/22/2001	REAL	SODIUM	81500.00	UG/L	TR1		24.20	V1
GS03	01D0737-012	04/22/2001	REAL	STRONTIUM	329.00	UG/L	TR1		0.02	V1
GS03	01D0737-012	04/22/2001	REAL	SULFATE	29.0	MG/L	TR1		1.0	V
GS03	01D0737-012	04/22/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS03	01D0737-012	04/22/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS03	01D0737-012	04/22/2001	REAL	TOTAL DISSOLVED SOLIDS	560	MG/L	TR1		10	V
GS03	01D0737-012	04/22/2001	REAL	TOTAL SUSPENDED SOLIDS	31.0	MG/L	TR1		5.0	V
GS03	01D0737-012	04/22/2001	REAL	VANADIUM	3.40	UG/L	TR1	B	0.18	V1
GS03	01D0737-012	04/22/2001	REAL	ZINC	10.00	UG/L	TR1	B	0.08	UJ1
GS03	01D0787-001	05/03/2001	REAL	TOTAL SUSPENDED SOLIDS	85.0	MG/L	TR1		5.0	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS03	01D0800-004	05/04/2001	REAL	Alkalinity, Total as CaCO3	110.0	MG/L	TR1		5.0	V1
GS03	01D0800-004	05/04/2001	REAL	ALUMINUM	6000.00	UG/L	TR1		3.20	V
GS03	01D0800-004	05/04/2001	REAL	ANTIMONY	1.00	UG/L	TR1	B	0.48	V
GS03	01D0800-004	05/04/2001	REAL	ARSENIC	2.50	UG/L	TR1	B	0.58	V
GS03	01D0800-004	05/04/2001	REAL	BARIUM	117.00	UG/L	TR1		0.05	V
GS03	01D0800-004	05/04/2001	REAL	BERYLLIUM	0.25	UG/L	TR1	B	0.05	V
GS03	01D0800-004	05/04/2001	REAL	CADMIUM	0.17	UG/L	TR1	B	0.08	V
GS03	01D0800-004	05/04/2001	REAL	CALCIUM	48400.00	UG/L	TR1		2.00	V
GS03	01D0800-004	05/04/2001	REAL	CHLORIDE	220.00	MG/L	TR1		0.50	V1
GS03	01D0800-004	05/04/2001	REAL	CHROMIUM	6.10	UG/L	TR1		0.22	V
GS03	01D0800-004	05/04/2001	REAL	COBALT	1.70	UG/L	TR1	B	0.20	V
GS03	01D0800-004	05/04/2001	REAL	COPPER	7.40	UG/L	TR1		0.18	V
GS03	01D0800-004	05/04/2001	REAL	FLUORIDE	0.28	MG/L	TR1		0.05	V1
GS03	01D0800-004	05/04/2001	REAL	HARDNESS, TOTAL	170.0	MG/L	TR1		1.0	V1
GS03	01D0800-004	05/04/2001	REAL	IRON	3950.00	UG/L	TR1		3.90	V
GS03	01D0800-004	05/04/2001	REAL	LEAD	3.50	UG/L	TR1		0.65	J
GS03	01D0800-004	05/04/2001	REAL	LITHIUM	19.20	UG/L	TR1	B	0.05	J
GS03	01D0800-004	05/04/2001	REAL	MAGNESIUM	10300.00	UG/L	TR1		2.20	V
GS03	01D0800-004	05/04/2001	REAL	MANGANESE	130.00	UG/L	TR1		0.18	V
GS03	01D0800-004	05/04/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS03	01D0800-004	05/04/2001	REAL	MOLYBDENUM	2.90	UG/L	TR1	B	0.25	V
GS03	01D0800-004	05/04/2001	REAL	NICKEL	5.60	UG/L	TR1	B	0.30	V
GS03	01D0800-004	05/04/2001	REAL	POTASSIUM	8060.00	UG/L	TR1		8.80	J
GS03	01D0800-004	05/04/2001	REAL	Remainder	100	%	TR1		1	V1
GS03	01D0800-004	05/04/2001	REAL	SELENIUM	0.75	UG/L	TR1	B	0.65	J
GS03	01D0800-004	05/04/2001	REAL	Sieve 1	1	%	TR1	U	1	V1
GS03	01D0800-004	05/04/2001	REAL	Sieve 2	1	%	TR1	U	1	V1
GS03	01D0800-004	05/04/2001	REAL	Sieve 3	1	%	TR1	U	1	V1
GS03	01D0800-004	05/04/2001	REAL	Sieve 4	1	%	TR1	U	1	V1
GS03	01D0800-004	05/04/2001	REAL	Sieve 5	1	%	TR1	U	1	V1
GS03	01D0800-004	05/04/2001	REAL	Sieve 6	1	%	TR1	U	1	V1
GS03	01D0800-004	05/04/2001	REAL	SILVER	0.51	UG/L	TR1	B	0.25	V
GS03	01D0800-004	05/04/2001	REAL	SODIUM	113000.00	UG/L	TR1		24.20	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS03	01D0800-004	05/04/2001	REAL	STRONTIUM	305.00	UG/L	TR1		0.02	V
GS03	01D0800-004	05/04/2001	REAL	SULFATE	24.0	MG/L	TR1		1.0	V1
GS03	01D0800-004	05/04/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V
GS03	01D0800-004	05/04/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V
GS03	01D0800-004	05/04/2001	REAL	TOTAL DISSOLVED SOLIDS	550	MG/L	TR1		10	J1
GS03	01D0800-004	05/04/2001	REAL	TOTAL SUSPENDED SOLIDS	160.0	MG/L	TR1		5.0	V1
GS03	01D0800-004	05/04/2001	REAL	VANADIUM	14.00	UG/L	TR1	B	0.18	V
GS03	01D0800-004	05/04/2001	REAL	ZINC	37.70	UG/L	TR1		0.08	V
GS03	01D0799-001	05/05/2001	REAL	TOTAL SUSPENDED SOLIDS	140.0	MG/L	TR1		5.0	V
GS03	01D0803-001	05/08/2001	REAL	TOTAL SUSPENDED SOLIDS	34.0	MG/L	TR1		5.0	V1
GS03	01D0810-001	05/09/2001	REAL	TOTAL SUSPENDED SOLIDS	23.0	MG/L	TR1		5.0	J1
GS03	01D0810-002	05/11/2001	REAL	TOTAL SUSPENDED SOLIDS	28.0	MG/L	TR1		5.0	V1
GS03	01D0822-001	05/13/2001	REAL	TOTAL SUSPENDED SOLIDS	27.0	MG/L	TR1		5.0	V1
GS03	01D0839-001	05/15/2001	REAL	TOTAL SUSPENDED SOLIDS	20.0	MG/L	TR1		5.0	V1
GS03	01D0869-001	05/17/2001	REAL	TOTAL SUSPENDED SOLIDS	27.0	MG/L	TR1		5.0	V1
GS03	01D1023-001	06/28/2001	REAL	TOTAL SUSPENDED SOLIDS	40.0	MG/L	TR1		5.0	V1
GS03	01D1076-001	07/10/2001	REAL	TOTAL SUSPENDED SOLIDS	36.0	MG/L	TR1		5.0	V
GS03	01D1076-002	07/12/2001	REAL	TOTAL SUSPENDED SOLIDS	24.0	MG/L	TR1		5.0	V
GS03	01D1219-001	08/02/2001	REAL	TOTAL SUSPENDED SOLIDS	15.0	MG/L	TR1		5.0	V1
GS03	01D1308-001	08/16/2001	REAL	TOTAL SUSPENDED SOLIDS	8.4	MG/L	TR1		1.9	V1
GS03	01D1342-001	08/19/2001	REAL	TOTAL SUSPENDED SOLIDS	16.0	MG/L	TR1		2.5	V
GS03	01D1377-001	08/22/2001	REAL	TOTAL SUSPENDED SOLIDS	11.0	MG/L	TR1		3.3	V1
GS04	01D0592-006	03/13/2001	REAL	Alkalinity, Total as CaCO3	110.0	MG/L	TR1		5.0	V1
GS04	01D0592-006	03/13/2001	REAL	ALUMINUM	73.50	UG/L	TR1		3.10	V1
GS04	01D0592-006	03/13/2001	REAL	ANTIMONY	0.43	UG/L	TR1	B	0.42	V1
GS04	01D0592-006	03/13/2001	REAL	ARSENIC	0.80	UG/L	TR1	U	0.80	V1
GS04	01D0592-006	03/13/2001	REAL	BARIUM	68.90	UG/L	TR1	B	0.05	V1
GS04	01D0592-006	03/13/2001	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	UJ1
GS04	01D0592-006	03/13/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS04	01D0592-006	03/13/2001	REAL	CALCIUM	39200.00	UG/L	TR1		2.80	V1
GS04	01D0592-006	03/13/2001	REAL	CHLORIDE	36.00	MG/L	TR1		0.50	V1
GS04	01D0592-006	03/13/2001	REAL	CHROMIUM	0.18	UG/L	TR1	U	0.18	V1
GS04	01D0592-006	03/13/2001	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS04	01D0592-006	03/13/2001	REAL	COPPER	1.20	UG/L	TR1	B	0.15	V1
GS04	01D0592-006	03/13/2001	REAL	FLUORIDE	0.42	MG/L	TR1		0.05	V1
GS04	01D0592-006	03/13/2001	REAL	IRON	43.90	UG/L	TR1	B	4.40	V1
GS04	01D0592-006	03/13/2001	REAL	LEAD	0.55	UG/L	TR1	U	0.55	V1
GS04	01D0592-006	03/13/2001	REAL	LITHIUM	14.40	UG/L	TR1	B	0.05	J1
GS04	01D0592-006	03/13/2001	REAL	MAGNESIUM	9090.00	UG/L	TR1		1.50	V1
GS04	01D0592-006	03/13/2001	REAL	MANGANESE	1.10	UG/L	TR1	B	0.05	V1
GS04	01D0592-006	03/13/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS04	01D0592-006	03/13/2001	REAL	MOLYBDENUM	0.33	UG/L	TR1	B	0.25	UJ1
GS04	01D0592-006	03/13/2001	REAL	NICKEL	0.97	UG/L	TR1	B	0.28	V1
GS04	01D0592-006	03/13/2001	REAL	POTASSIUM	1860.00	UG/L	TR1	B	5.20	V1
GS04	01D0592-006	03/13/2001	REAL	Remainder	100	%	TR1		1	V1
GS04	01D0592-006	03/13/2001	REAL	SELENIUM	0.78	UG/L	TR1	U	0.78	V1
GS04	01D0592-006	03/13/2001	REAL	Sieve 1	1	%	TR1	U	1	V1
GS04	01D0592-006	03/13/2001	REAL	Sieve 2	1	%	TR1	U	1	V1
GS04	01D0592-006	03/13/2001	REAL	Sieve 3	1	%	TR1	U	1	V1
GS04	01D0592-006	03/13/2001	REAL	Sieve 4	1	%	TR1	U	1	V1
GS04	01D0592-006	03/13/2001	REAL	Sieve 5	1	%	TR1	U	1	V1
GS04	01D0592-006	03/13/2001	REAL	Sieve 6	1	%	TR1	U	1	V1
GS04	01D0592-006	03/13/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS04	01D0592-006	03/13/2001	REAL	SODIUM	23000.00	UG/L	TR1		0.65	V1
GS04	01D0592-006	03/13/2001	REAL	STRONTIUM	237.00	UG/L	TR1		0.02	V1
GS04	01D0592-006	03/13/2001	REAL	SULFATE	39.0	MG/L	TR1		1.0	V1
GS04	01D0592-006	03/13/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	J1
GS04	01D0592-006	03/13/2001	REAL	TIN	0.58	UG/L	TR1	U	0.58	V1
GS04	01D0592-006	03/13/2001	REAL	TOTAL DISSOLVED SOLIDS	270	MG/L	TR1		10	V1
GS04	01D0592-006	03/13/2001	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1	U	5.0	V1
GS04	01D0592-006	03/13/2001	REAL	VANADIUM	0.38	UG/L	TR1	B	0.15	V1
GS04	01D0592-006	03/13/2001	REAL	ZINC	0.72	UG/L	TR1	B	0.12	V1
GS04	01D1097-009	07/14/2001	REAL	Alkalinity, Total as CaCO3	68.0	MG/L	TR1		5.0	V1
GS04	01D1097-009	07/14/2001	REAL	ALUMINUM	11600.00	UG/L	TR1		3.20	V1
GS04	01D1097-009	07/14/2001	REAL	ANTIMONY	0.51	UG/L	TR1	B	0.48	V1
GS04	01D1097-009	07/14/2001	REAL	ARSENIC	3.50	UG/L	TR1	B	0.58	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS04	01D1097-009	07/14/2001	REAL	BARIUM	119.00	UG/L	TR1		0.05	V1
GS04	01D1097-009	07/14/2001	REAL	BERYLLIUM	0.36	UG/L	TR1	B	0.05	V1
GS04	01D1097-009	07/14/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS04	01D1097-009	07/14/2001	REAL	CALCIUM	23000.00	UG/L	TR1		2.00	V1
GS04	01D1097-009	07/14/2001	REAL	CHLORIDE	13.00	MG/L	TR1		0.50	V1
GS04	01D1097-009	07/14/2001	REAL	CHROMIUM	13.00	UG/L	TR1		0.22	V1
GS04	01D1097-009	07/14/2001	REAL	COBALT	1.90	UG/L	TR1	B	0.20	V1
GS04	01D1097-009	07/14/2001	REAL	COPPER	7.70	UG/L	TR1		0.18	V1
GS04	01D1097-009	07/14/2001	REAL	FLUORIDE	0.33	MG/L	TR1		0.05	V1
GS04	01D1097-009	07/14/2001	REAL	HARDNESS, TOTAL	88.0	MG/L	TR1		1.0	V1
GS04	01D1097-009	07/14/2001	REAL	IRON	8100.00	UG/L	TR1		3.90	V1
GS04	01D1097-009	07/14/2001	REAL	LEAD	6.30	UG/L	TR1		0.65	V1
GS04	01D1097-009	07/14/2001	REAL	LITHIUM	16.10	UG/L	TR1	B	0.05	J1
GS04	01D1097-009	07/14/2001	REAL	MAGNESIUM	6610.00	UG/L	TR1		2.20	V1
GS04	01D1097-009	07/14/2001	REAL	MANGANESE	82.20	UG/L	TR1		0.02	V1
GS04	01D1097-009	07/14/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS04	01D1097-009	07/14/2001	REAL	MOLYBDENUM	0.59	UG/L	TR1	B	0.25	V1
GS04	01D1097-009	07/14/2001	REAL	NICKEL	11.10	UG/L	TR1	B	0.30	V1
GS04	01D1097-009	07/14/2001	REAL	POTASSIUM	8200.00	UG/L	TR1		8.80	J1
GS04	01D1097-009	07/14/2001	REAL	Remainder	100	%	TR1		1	V1
GS04	01D1097-009	07/14/2001	REAL	SELENIUM	2.10	UG/L	TR1	B	0.65	J1
GS04	01D1097-009	07/14/2001	REAL	Sieve 1	1	%	TR1	U	1	V1
GS04	01D1097-009	07/14/2001	REAL	Sieve 2	1	%	TR1	U	1	V1
GS04	01D1097-009	07/14/2001	REAL	Sieve 3	1	%	TR1	U	1	V1
GS04	01D1097-009	07/14/2001	REAL	Sieve 4	1	%	TR1	U	1	V1
GS04	01D1097-009	07/14/2001	REAL	Sieve 5	1	%	TR1	U	1	V1
GS04	01D1097-009	07/14/2001	REAL	Sieve 6	1	%	TR1	U	1	V1
GS04	01D1097-009	07/14/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS04	01D1097-009	07/14/2001	REAL	SODIUM	12600.00	UG/L	TR1		24.20	V1
GS04	01D1097-009	07/14/2001	REAL	STRONTIUM	143.00	UG/L	TR1	B	0.02	V1
GS04	01D1097-009	07/14/2001	REAL	SULFATE	21.0	MG/L	TR1		1.0	V1
GS04	01D1097-009	07/14/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS04	01D1097-009	07/14/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS04	01D1097-009	07/14/2001	REAL	TOTAL DISSOLVED SOLIDS	220	MG/L	TR1		10	V1
GS04	01D1097-009	07/14/2001	REAL	TOTAL SUSPENDED SOLIDS	220.0	MG/L	TR1		5.0	V1
GS04	01D1097-009	07/14/2001	REAL	VANADIUM	24.00	UG/L	TR1	B	0.18	V1
GS04	01D1097-009	07/14/2001	REAL	ZINC	35.90	UG/L	TR1		0.08	V1
GS06	01D1237-008	08/09/2001	REAL	Alkalinity, Total as CaCO3	9.1	MG/L	TR1		0.5	V1
GS06	01D1237-008	08/09/2001	REAL	ALUMINUM	57700.00	UG/L	TR1		4.00	V1
GS06	01D1237-008	08/09/2001	REAL	ANTIMONY	0.93	UG/L	TR1	B	0.58	V1
GS06	01D1237-008	08/09/2001	REAL	ARSENIC	17.90	UG/L	TR1		0.98	V1
GS06	01D1237-008	08/09/2001	REAL	BARIUM	474.00	UG/L	TR1		0.02	V1
GS06	01D1237-008	08/09/2001	REAL	BERYLLIUM	4.20	UG/L	TR1		0.05	V1
GS06	01D1237-008	08/09/2001	REAL	CADMIUM	0.27	UG/L	TR1	B	0.08	V1
GS06	01D1237-008	08/09/2001	REAL	CALCIUM	15900.00	UG/L	TR1		2.00	V1
GS06	01D1237-008	08/09/2001	REAL	CHLORIDE	5.80	MG/L	TR1		0.10	V1
GS06	01D1237-008	08/09/2001	REAL	CHROMIUM	44.80	UG/L	TR1		0.35	V1
GS06	01D1237-008	08/09/2001	REAL	COBALT	14.70	UG/L	TR1	B	0.22	V1
GS06	01D1237-008	08/09/2001	REAL	COPPER	29.80	UG/L	TR1		0.12	V1
GS06	01D1237-008	08/09/2001	REAL	FLUORIDE	0.27	MG/L	TR1	B	0.03	V1
GS06	01D1237-008	08/09/2001	REAL	HARDNESS, TOTAL	47.6	MG/L	TR1		2.0	V1
GS06	01D1237-008	08/09/2001	REAL	IRON	40500.00	UG/L	TR1		3.90	V1
GS06	01D1237-008	08/09/2001	REAL	LEAD	35.10	UG/L	TR1		0.60	V1
GS06	01D1237-008	08/09/2001	REAL	LITHIUM	31.40	UG/L	TR1	B	0.02	J1
GS06	01D1237-008	08/09/2001	REAL	MAGNESIUM	8140.00	UG/L	TR1		2.00	V1
GS06	01D1237-008	08/09/2001	REAL	MANGANESE	598.00	UG/L	TR1		0.02	V1
GS06	01D1237-008	08/09/2001	REAL	MERCURY	0.28	UG/L	TR1		0.10	V1
GS06	01D1237-008	08/09/2001	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.25	V1
GS06	01D1237-008	08/09/2001	REAL	NICKEL	36.20	UG/L	TR1		0.42	V1
GS06	01D1237-008	08/09/2001	REAL	POTASSIUM	9500.00	UG/L	TR1		2.70	V1
GS06	01D1237-008	08/09/2001	REAL	Remainder	100	%	TR1		1	V
GS06	01D1237-008	08/09/2001	REAL	SELENIUM	2.70	UG/L	TR1	B	0.80	V1
GS06	01D1237-008	08/09/2001	REAL	Sieve 1	1	%	TR1	U	1	V
GS06	01D1237-008	08/09/2001	REAL	Sieve 2	1	%	TR1	U	1	V
GS06	01D1237-008	08/09/2001	REAL	Sieve 3	1	%	TR1	U	1	V
GS06	01D1237-008	08/09/2001	REAL	Sieve 4	1	%	TR1	U	1	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS06	01D1237-008	08/09/2001	REAL	Sieve 5	1	%	TR1	U	1	V
GS06	01D1237-008	08/09/2001	REAL	Sieve 6	1	%	TR1	U	1	V
GS06	01D1237-008	08/09/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS06	01D1237-008	08/09/2001	REAL	SODIUM	2270.00	UG/L	TR1	B	0.40	V1
GS06	01D1237-008	08/09/2001	REAL	STRONTIUM	109.00	UG/L	TR1	B	0.02	V1
GS06	01D1237-008	08/09/2001	REAL	SULFATE	3.9	MG/L	TR1	B	0.1	V1
GS06	01D1237-008	08/09/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS06	01D1237-008	08/09/2001	REAL	TIN	1.50	UG/L	TR1	B	0.98	V1
GS06	01D1237-008	08/09/2001	REAL	VANADIUM	100.00	UG/L	TR1		0.12	V1
GS06	01D1237-008	08/09/2001	REAL	ZINC	87.60	UG/L	TR1		0.10	V1
GS08	01D0239-002	11/13/2000	REAL	TOTAL SUSPENDED SOLIDS	7.0	MG/L	TR1		5.0	J1
GS08	01D0337-007	01/11/2001	REAL	TOTAL SUSPENDED SOLIDS	32.0	MG/L	TR1		5.0	V
GS08	01D0348-002	01/16/2001	REAL	TOTAL SUSPENDED SOLIDS	9.0	MG/L	TR1		5.0	V
GS08	01D0790-002	05/03/2001	REAL	TOTAL SUSPENDED SOLIDS	22.0	MG/L	TR1		5.0	V1
GS08	01D0800-002	05/05/2001	REAL	TOTAL SUSPENDED SOLIDS	50.0	MG/L	TR1		5.0	V1
GS08	01D0805-001	05/07/2001	REAL	TOTAL SUSPENDED SOLIDS	23.0	MG/L	TR1		5.0	V1
GS08	01D0811-002	05/10/2001	REAL	TOTAL SUSPENDED SOLIDS	16.0	MG/L	TR1		5.0	V1
GS08	01D1022-001	06/28/2001	REAL	TOTAL SUSPENDED SOLIDS	26.0	MG/L	TR1		5.0	V1
GS08	01D1219-002	08/02/2001	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1		5.0	V1
GS10	01D0171-002	10/05/2000	REAL	ALUMINUM	181.00	UG/L	TR1		2.60	V1
GS10	01D0171-002	10/05/2000	REAL	ANTIMONY	8.60	UG/L	TR1		0.52	V1
GS10	01D0171-002	10/05/2000	REAL	ARSENIC	0.85	UG/L	TR1	U	0.85	V1
GS10	01D0171-002	10/05/2000	REAL	BARIUM	85.10	UG/L	TR1	B	0.05	V1
GS10	01D0171-002	10/05/2000	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	V1
GS10	01D0171-002	10/05/2000	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS10	01D0171-002	10/05/2000	REAL	CADMIUM D	0.14	UG/L	TR1	B	0.08	V1
GS10	01D0171-002	10/05/2000	REAL	CALCIUM	46300.00	UG/L	TR1		2.20	V1
GS10	01D0171-002	10/05/2000	REAL	CHLORIDE	81.00	MG/L	TR1		0.50	1
GS10	01D0171-002	10/05/2000	REAL	CHROMIUM	0.40	UG/L	TR1	B	0.22	V1
GS10	01D0171-002	10/05/2000	REAL	COBALT	0.43	UG/L	TR1	B	0.20	UJ1
GS10	01D0171-002	10/05/2000	REAL	COPPER	2.60	UG/L	TR1	B	0.20	V1
GS10	01D0171-002	10/05/2000	REAL	FLUORIDE	0.31	MG/L	TR1		0.05	1
GS10	01D0171-002	10/05/2000	REAL	HARDNESS, TOTAL	170.0	MG/L	TR1		1.0	1

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GS10	01D0171-002	10/05/2000	REAL	IRON	247.00	UG/L	TR1		4.10	V1
GS10	01D0171-002	10/05/2000	REAL	LEAD	0.80	UG/L	TR1	B	0.52	J1
GS10	01D0171-002	10/05/2000	REAL	LITHIUM	6.50	UG/L	TR1	B	0.05	J1
GS10	01D0171-002	10/05/2000	REAL	MAGNESIUM	10300.00	UG/L	TR1		2.00	V1
GS10	01D0171-002	10/05/2000	REAL	MANGANESE	23.10	UG/L	TR1		0.05	V1
GS10	01D0171-002	10/05/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS10	01D0171-002	10/05/2000	REAL	MOLYBDENUM	0.92	UG/L	TR1	B	0.22	J1
GS10	01D0171-002	10/05/2000	REAL	NICKEL	1.40	UG/L	TR1	B	0.30	V1
GS10	01D0171-002	10/05/2000	REAL	POTASSIUM	2880.00	UG/L	TR1	B	7.50	J1
GS10	01D0171-002	10/05/2000	REAL	SELENIUM	1.20	UG/L	TR1	B	1.10	V1
GS10	01D0171-002	10/05/2000	REAL	SILICON	2970.00	UG/L	TR1		1.50	1
GS10	01D0171-002	10/05/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS10	01D0171-002	10/05/2000	REAL	SILVER D	0.28	UG/L	TR1	U	0.28	V1
GS10	01D0171-002	10/05/2000	REAL	SODIUM	39400.00	UG/L	TR1		6.80	V1
GS10	01D0171-002	10/05/2000	REAL	STRONTIUM	301.00	UG/L	TR1		0.02	J1
GS10	01D0171-002	10/05/2000	REAL	SULFATE	14.0	MG/L	TR1		1.0	1
GS10	01D0171-002	10/05/2000	REAL	THALLIUM	0.90	UG/L	TR1	U	0.90	V1
GS10	01D0171-002	10/05/2000	REAL	TIN	0.52	UG/L	TR1	U	0.52	V1
GS10	01D0171-002	10/05/2000	REAL	TOTAL DISSOLVED SOLIDS	310	MG/L	TR1		10	1
GS10	01D0171-002	10/05/2000	REAL	TOTAL ORGANIC CARBON	6	MG/L	TR1		1	1
GS10	01D0171-002	10/05/2000	REAL	TOTAL SUSPENDED SOLIDS	6.0	MG/L	TR1		5.0	1
GS10	01D0171-002	10/05/2000	REAL	VANADIUM	0.85	UG/L	TR1	B	0.22	V1
GS10	01D0171-002	10/05/2000	REAL	ZINC	42.20	UG/L	TR1		0.10	J1
GS10	01D0184-001	10/09/2000	REAL	ALUMINUM	290.00	UG/L	TR1		2.60	V
GS10	01D0184-001	10/09/2000	REAL	ALUMINUM	243.50	UG/L	TR2		2.60	
GS10	01D0184-001	10/09/2000	REAL	ANTIMONY	1.80	UG/L	TR2	B	0.52	
GS10	01D0184-001	10/09/2000	REAL	ANTIMONY	1.90	UG/L	TR1	B	0.52	V
GS10	01D0184-001	10/09/2000	REAL	ARSENIC	0.85	UG/L	TR2	U	0.85	
GS10	01D0184-001	10/09/2000	REAL	ARSENIC	0.85	UG/L	TR1	U	0.85	V
GS10	01D0184-001	10/09/2000	REAL	BARIUM	137.00	UG/L	TR2		0.05	
GS10	01D0184-001	10/09/2000	REAL	BARIUM	139.00	UG/L	TR1		0.05	V
GS10	01D0184-001	10/09/2000	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	V
GS10	01D0184-001	10/09/2000	REAL	CADMIUM	0.08	UG/L	TR2	U	0.08	

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	01D0184-001	10/09/2000	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V
GS10	01D0184-001	10/09/2000	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V
GS10	01D0184-001	10/09/2000	REAL	CALCIUM	76108.00	UG/L	TR2		2.20	
GS10	01D0184-001	10/09/2000	REAL	CALCIUM	77400.00	UG/L	TR1		2.20	V
GS10	01D0184-001	10/09/2000	REAL	CHLORIDE	120.00	MG/L	TR1		0.50	1
GS10	01D0184-001	10/09/2000	REAL	CHROMIUM	0.27	UG/L	TR1	B	0.22	V
GS10	01D0184-001	10/09/2000	REAL	CHROMIUM	0.40	UG/L	TR1	B	0.22	V
GS10	01D0184-001	10/09/2000	REAL	COBALT	0.20	UG/L	TR1	U	0.20	V
GS10	01D0184-001	10/09/2000	REAL	COBALT	0.20	UG/L	TR2	U	0.20	
GS10	01D0184-001	10/09/2000	REAL	COPPER	1.30	UG/L	TR1	B	0.20	V
GS10	01D0184-001	10/09/2000	REAL	COPPER	1.30	UG/L	TR2	B	0.20	
GS10	01D0184-001	10/09/2000	REAL	FLUORIDE	0.46	MG/L	TR1		0.05	1
GS10	01D0184-001	10/09/2000	REAL	HARDNESS, TOTAL	290.0	MG/L	TR1		1.0	1
GS10	01D0184-001	10/09/2000	REAL	IRON	360.00	UG/L	TR1		4.10	J
GS10	01D0184-001	10/09/2000	REAL	IRON	356.00	UG/L	TR2		4.10	
GS10	01D0184-001	10/09/2000	REAL	LEAD	0.52	UG/L	TR1	U	0.52	J
GS10	01D0184-001	10/09/2000	REAL	LEAD	0.52	UG/L	TR2	U	0.52	
GS10	01D0184-001	10/09/2000	REAL	LITHIUM	12.90	UG/L	TR1	B	0.05	J
GS10	01D0184-001	10/09/2000	REAL	LITHIUM	12.90	UG/L	TR2	B	0.05	
GS10	01D0184-001	10/09/2000	REAL	MAGNESIUM	19700.00	UG/L	TR1		2.00	V
GS10	01D0184-001	10/09/2000	REAL	MAGNESIUM	19334.00	UG/L	TR2		2.00	
GS10	01D0184-001	10/09/2000	REAL	MANGANESE	34.70	UG/L	TR1		0.05	V
GS10	01D0184-001	10/09/2000	REAL	MANGANESE	34.10	UG/L	TR2		0.05	
GS10	01D0184-001	10/09/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS10	01D0184-001	10/09/2000	REAL	MERCURY	0.10	UG/L	TR2	U	0.10	
GS10	01D0184-001	10/09/2000	REAL	MOLYBDENUM	1.80	UG/L	TR2	B	0.22	
GS10	01D0184-001	10/09/2000	REAL	MOLYBDENUM	1.90	UG/L	TR1	B	0.22	V
GS10	01D0184-001	10/09/2000	REAL	NICKEL	1.50	UG/L	TR1	B	0.30	V
GS10	01D0184-001	10/09/2000	REAL	NICKEL	1.50	UG/L	TR2	B	0.30	
GS10	01D0184-001	10/09/2000	REAL	POTASSIUM	3320.00	UG/L	TR1	B	7.50	J
GS10	01D0184-001	10/09/2000	REAL	POTASSIUM	3324.00	UG/L	TR2	B	7.50	
GS10	01D0184-001	10/09/2000	REAL	SELENIUM	1.30	UG/L	TR2	B	1.10	
GS10	01D0184-001	10/09/2000	REAL	SELENIUM	2.00	UG/L	TR1	B	1.10	V

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	01D0184-001	10/09/2000	REAL	SILICON	5100.00	UG/L	TR1		1.50	V1
GS10	01D0184-001	10/09/2000	REAL	SILICON	5078.00	UG/L	TR2		1.50	1
GS10	01D0184-001	10/09/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V
GS10	01D0184-001	10/09/2000	REAL	SILVER	2.80	UG/L	TR2	U	0.28	
GS10	01D0184-001	10/09/2000	REAL	SILVER D	0.28	UG/L	TR1	U	0.28	V
GS10	01D0184-001	10/09/2000	REAL	SODIUM	63400.00	UG/L	TR1		6.80	V
GS10	01D0184-001	10/09/2000	REAL	SODIUM	61742.00	UG/L	TR2		6.80	
GS10	01D0184-001	10/09/2000	REAL	STRONTIUM	556.00	UG/L	TR2		0.02	
GS10	01D0184-001	10/09/2000	REAL	STRONTIUM	562.00	UG/L	TR1		0.02	V
GS10	01D0184-001	10/09/2000	REAL	SULFATE	26.0	MG/L	TR1		1.0	1
GS10	01D0184-001	10/09/2000	REAL	THALLIUM	0.90	UG/L	TR2	U	0.90	
GS10	01D0184-001	10/09/2000	REAL	THALLIUM	0.90	UG/L	TR1	U	0.90	V
GS10	01D0184-001	10/09/2000	REAL	TIN	0.52	UG/L	TR1	U	0.52	V
GS10	01D0184-001	10/09/2000	REAL	TIN	0.52	UG/L	TR2	U	0.52	
GS10	01D0184-001	10/09/2000	REAL	TOTAL DISSOLVED SOLIDS	480	MG/L	TR1		10	J1
GS10	01D0184-001	10/09/2000	REAL	TOTAL ORGANIC CARBON	4	MG/L	TR1		1	1
GS10	01D0184-001	10/09/2000	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1		5.0	J1
GS10	01D0184-001	10/09/2000	REAL	VANADIUM	0.68	UG/L	TR2	B	0.22	
GS10	01D0184-001	10/09/2000	REAL	VANADIUM	0.72	UG/L	TR1	B	0.22	V
GS10	01D0184-001	10/09/2000	REAL	ZINC	26.50	UG/L	TR2		0.10	
GS10	01D0184-001	10/09/2000	REAL	ZINC	26.80	UG/L	TR1		0.10	V
GS10	01D0199-001	10/18/2000	REAL	ALUMINUM	630.00	UG/L	TR2		5.70	V1
GS10	01D0199-001	10/18/2000	REAL	ANTIMONY	10.80	UG/L	TR1		0.58	V1
GS10	01D0199-001	10/18/2000	REAL	ANTIMONY	10.70	UG/L	TR2		0.58	V1
GS10	01D0199-001	10/18/2000	REAL	ARSENIC	0.98	UG/L	TR1	B	0.60	V1
GS10	01D0199-001	10/18/2000	REAL	ARSENIC	1.30	UG/L	TR2	B	0.60	V1
GS10	01D0199-001	10/18/2000	REAL	BARIUM	88.30	UG/L	TR1	B	0.05	V1
GS10	01D0199-001	10/18/2000	REAL	BARIUM	86.90	UG/L	TR2	B	0.05	V1
GS10	01D0199-001	10/18/2000	REAL	BERYLLIUM	0.05	UG/L	TR1	B	0.02	V1
GS10	01D0199-001	10/18/2000	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	V1
GS10	01D0199-001	10/18/2000	REAL	CADMIUM	0.25	UG/L	TR1	B	0.08	V1
GS10	01D0199-001	10/18/2000	REAL	CADMIUM	0.18	UG/L	TR2	B	0.08	V1
GS10	01D0199-001	10/18/2000	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	01D0199-001	10/18/2000	REAL	CALCIUM	43340.00	UG/L	TR2		4.80	V1
GS10	01D0199-001	10/18/2000	REAL	CALCIUM	43700.00	UG/L	TR1		4.80	V1
GS10	01D0199-001	10/18/2000	REAL	CHLORIDE	90.00	MG/L	TR1		0.50	V1
GS10	01D0199-001	10/18/2000	REAL	CHROMIUM	1.10	UG/L	TR2	B	0.15	V1
GS10	01D0199-001	10/18/2000	REAL	COBALT	0.43	UG/L	TR2	B	0.22	V1
GS10	01D0199-001	10/18/2000	REAL	COBALT	0.41	UG/L	TR1	B	0.22	V1
GS10	01D0199-001	10/18/2000	REAL	COPPER	3.70	UG/L	TR1		0.22	V1
GS10	01D0199-001	10/18/2000	REAL	COPPER	3.70	UG/L	TR2		0.22	V1
GS10	01D0199-001	10/18/2000	REAL	FLUORIDE	0.31	MG/L	TR1		0.05	V1
GS10	01D0199-001	10/18/2000	REAL	HARDNESS, TOTAL	180.0	MG/L	TR1		1.0	V1
GS10	01D0199-001	10/18/2000	REAL	IRON	1080.00	UG/L	TR1		5.40	V1
GS10	01D0199-001	10/18/2000	REAL	IRON	1077.00	UG/L	TR2		5.40	V1
GS10	01D0199-001	10/18/2000	REAL	LEAD	1.70	UG/L	TR1	B	0.52	V1
GS10	01D0199-001	10/18/2000	REAL	LEAD	2.30	UG/L	TR2		0.52	V1
GS10	01D0199-001	10/18/2000	REAL	LITHIUM	6.80	UG/L	TR1	B	0.05	J1
GS10	01D0199-001	10/18/2000	REAL	LITHIUM	6.80	UG/L	TR2	B	0.05	V1
GS10	01D0199-001	10/18/2000	REAL	MAGNESIUM	10500.00	UG/L	TR1		1.70	V1
GS10	01D0199-001	10/18/2000	REAL	MAGNESIUM	10457.00	UG/L	TR2		1.70	V1
GS10	01D0199-001	10/18/2000	REAL	MANGANESE	88.40	UG/L	TR1		0.05	V1
GS10	01D0199-001	10/18/2000	REAL	MANGANESE	87.00	UG/L	TR2		0.05	V1
GS10	01D0199-001	10/18/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS10	01D0199-001	10/18/2000	REAL	MOLYBDENUM	1.10	UG/L	TR2	B	0.25	V1
GS10	01D0199-001	10/18/2000	REAL	NICKEL	1.70	UG/L	TR1	B	0.22	V1
GS10	01D0199-001	10/18/2000	REAL	NICKEL	1.60	UG/L	TR2	B	0.22	V1
GS10	01D0199-001	10/18/2000	REAL	POTASSIUM	2720.00	UG/L	TR1	B	10.20	J1
GS10	01D0199-001	10/18/2000	REAL	POTASSIUM	2695.00	UG/L	TR2	B	10.20	V1
GS10	01D0199-001	10/18/2000	REAL	SELENIUM	0.91	UG/L	TR2	U	0.82	V1
GS10	01D0199-001	10/18/2000	REAL	SELENIUM	0.82	UG/L	TR1	U	0.82	V1
GS10	01D0199-001	10/18/2000	REAL	SILICON	3650.00	UG/L	TR1		1.60	V1
GS10	01D0199-001	10/18/2000	REAL	SILVER	0.28	UG/L	TR2	U	0.28	V1
GS10	01D0199-001	10/18/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS10	01D0199-001	10/18/2000	REAL	SILVER D	0.28	UG/L	TR1	U	0.28	V1
GS10	01D0199-001	10/18/2000	REAL	SODIUM	36794.00	UG/L	TR2	B	5.10	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	01D0199-001	10/18/2000	REAL	SODIUM	36600.00	UG/L	TR1		5.10	V1
GS10	01D0199-001	10/18/2000	REAL	STRONTIUM	303.00	UG/L	TR1		0.02	V1
GS10	01D0199-001	10/18/2000	REAL	STRONTIUM	300.00	UG/L	TR2		0.02	V1
GS10	01D0199-001	10/18/2000	REAL	SULFATE	17.0	MG/L	TR1		1.0	V1
GS10	01D0199-001	10/18/2000	REAL	THALLIUM	1.00	UG/L	TR2	U	1.00	V1
GS10	01D0199-001	10/18/2000	REAL	THALLIUM	1.00	UG/L	TR1	U	1.00	V1
GS10	01D0199-001	10/18/2000	REAL	TIN	0.65	UG/L	TR1	U	0.65	V1
GS10	01D0199-001	10/18/2000	REAL	TIN	0.65	UG/L	TR2	U	0.65	V1
GS10	01D0199-001	10/18/2000	REAL	TOTAL ORGANIC CARBON	6	MG/L	TR1		1	V1
GS10	01D0199-001	10/18/2000	REAL	VANADIUM	1.98	UG/L	TR2	B	0.20	V1
GS10	01D0199-001	10/18/2000	REAL	VANADIUM	2.00	UG/L	TR1	B	0.20	V1
GS10	01D0199-001	10/18/2000	REAL	ZINC	77.80	UG/L	TR1		0.10	V1
GS10	01D0199-001	10/18/2000	REAL	ZINC	76.80	UG/L	TR2		0.10	V1
GS10	01D0239-003	10/26/2000	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS10	01D0239-003	10/26/2000	REAL	CADMIUM_D	0.08	UG/L	TR1	B	0.07	V1
GS10	01D0239-003	10/26/2000	REAL	CHROMIUM	0.63	UG/L	TR1	B	0.15	V1
GS10	01D0239-003	10/26/2000	REAL	HARDNESS, TOTAL	280.0	MG/L	TR1		1.0	V1
GS10	01D0239-003	10/26/2000	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
GS10	01D0305-002	11/17/2000	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.02	UJ1
GS10	01D0305-002	11/17/2000	REAL	CADMIUM_D	0.13	UG/L	TR1	B	0.08	UJ1
GS10	01D0305-002	11/17/2000	REAL	CHROMIUM	0.92	UG/L	TR1	B	0.15	V1
GS10	01D0305-002	11/17/2000	REAL	HARDNESS, TOTAL	370.0	MG/L	TR1		1.0	V1
GS10	01D0305-002	11/17/2000	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
GS10	01D0329-001	12/15/2000	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.02	V1
GS10	01D0329-001	12/15/2000	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	01D0329-001	12/15/2000	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.15	V1
GS10	01D0329-001	12/15/2000	REAL	HARDNESS, TOTAL	390.0	MG/L	TR1		1.0	V1
GS10	01D0329-001	12/15/2000	REAL	SILVER_D	0.28	UG/L	TR1	U	0.22	V1
GS10	01D0362-003	01/08/2001	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	J1
GS10	01D0362-003	01/08/2001	REAL	CADMIUM_D	0.20	UG/L	TR1	B	0.08	V1
GS10	01D0362-003	01/08/2001	REAL	CHROMIUM	1.00	UG/L	TR1	B	0.15	UJ1
GS10	01D0362-003	01/08/2001	REAL	HARDNESS, TOTAL	350.0	MG/L	TR1		1.0	V
GS10	01D0362-003	01/08/2001	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1

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GS10	01D0518-003	02/06/2001	REAL	BERYLLIUM	0.21	UG/L	TR1	B	0.02	V1
GS10	01D0518-003	02/06/2001	REAL	CADMIUM_D	0.37	UG/L	TR1	B	0.08	V1
GS10	01D0518-003	02/06/2001	REAL	CHROMIUM	3.50	UG/L	TR1		0.18	V1
GS10	01D0518-003	02/06/2001	REAL	HARDNESS, TOTAL	300.0	MG/L	TR1		1.0	V1
GS10	01D0518-003	02/06/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
GS10	01D0535-002	02/15/2001	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.02	V1
GS10	01D0535-002	02/15/2001	REAL	CADMIUM_D	0.32	UG/L	TR1	B	0.08	V1
GS10	01D0535-002	02/15/2001	REAL	CHROMIUM	0.81	UG/L	TR1	B	0.18	V1
GS10	01D0535-002	02/15/2001	REAL	HARDNESS, TOTAL	450.0	MG/L	TR1		1.0	V1
GS10	01D0535-002	02/15/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
GS10	01D0592-005	02/28/2001	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.02	J1
GS10	01D0592-005	02/28/2001	REAL	CADMIUM_D	0.40	UG/L	TR1	B	0.08	J1
GS10	01D0592-005	02/28/2001	REAL	CHROMIUM	5.90	UG/L	TR1		0.18	V1
GS10	01D0592-005	02/28/2001	REAL	HARDNESS, TOTAL	290.0	MG/L	TR1		1.0	V1
GS10	01D0592-005	02/28/2001	REAL	SILVER_D	0.19	UG/L	TR1	B	0.15	V1
GS10	01D0646-004	03/15/2001	REAL	BERYLLIUM	0.20	UG/L	TR1	B	0.02	V1
GS10	01D0646-004	03/15/2001	REAL	CADMIUM_D	0.12	UG/L	TR1	B	0.08	V1
GS10	01D0646-004	03/15/2001	REAL	CHROMIUM	5.80	UG/L	TR1		0.18	V1
GS10	01D0646-004	03/15/2001	REAL	HARDNESS, TOTAL	360.0	MG/L	TR1		1.0	V1
GS10	01D0646-004	03/15/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
GS10	01D0684-006	03/27/2001	REAL	BERYLLIUM	0.18	UG/L	TR1	B	0.02	V1
GS10	01D0684-006	03/27/2001	REAL	CADMIUM_D	0.11	UG/L	TR1	B	0.08	J1
GS10	01D0684-006	03/27/2001	REAL	CHROMIUM	2.40	UG/L	TR1		0.18	V1
GS10	01D0684-006	03/27/2001	REAL	HARDNESS, TOTAL	380.0	MG/L	TR1		1.0	V1
GS10	01D0684-006	03/27/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
GS10	01D0692-005	04/09/2001	REAL	BERYLLIUM	0.61	UG/L	TR1	B	0.05	UJ1
GS10	01D0692-005	04/09/2001	REAL	CADMIUM_D	0.15	UG/L	TR1	B	0.08	V1
GS10	01D0692-005	04/09/2001	REAL	CHROMIUM	9.50	UG/L	TR1		0.22	V1
GS10	01D0692-005	04/09/2001	REAL	HARDNESS, TOTAL	140.0	MG/L	TR1		1.0	V1
GS10	01D0692-005	04/09/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0704-006	04/12/2001	REAL	BERYLLIUM	0.43	UG/L	TR1	B	0.05	UJ1
GS10	01D0704-006	04/12/2001	REAL	CADMIUM_D	0.11	UG/L	TR1	B	0.08	V1
GS10	01D0704-006	04/12/2001	REAL	CHROMIUM	3.20	UG/L	TR1		0.22	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	01D0704-006	04/12/2001	REAL	HARDNESS, TOTAL	240.0	MG/L	TR1		1.0	V
GS10	01D0704-006	04/12/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0737-007	04/20/2001	REAL	BERYLLIUM	0.67	UG/L	TR1	B	0.05	UJ1
GS10	01D0737-007	04/20/2001	REAL	CADMIUM D	0.18	UG/L	TR1	B	0.08	UJ1
GS10	01D0737-007	04/20/2001	REAL	CHROMIUM	3.50	UG/L	TR1		0.22	V1
GS10	01D0737-007	04/20/2001	REAL	HARDNESS, TOTAL	160.0	MG/L	TR1		1.0	V
GS10	01D0737-007	04/20/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0737-007	04/20/2001	REAL	TOTAL SUSPENDED SOLIDS	68.0	MG/L	TR1		5.0	V
GS10	01D0776-004	04/24/2001	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.05	V
GS10	01D0776-004	04/24/2001	REAL	CADMIUM D	0.14	UG/L	TR1	B	0.08	V
GS10	01D0776-004	04/24/2001	REAL	CHROMIUM	2.40	UG/L	TR1		0.22	V
GS10	01D0776-004	04/24/2001	REAL	HARDNESS, TOTAL	300.0	MG/L	TR1		1.0	V1
GS10	01D0776-004	04/24/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V
GS10	01D0790-004	05/03/2001	REAL	BERYLLIUM	0.23	UG/L	TR1	B	0.05	V1
GS10	01D0790-020	05/03/2001	DUP	BERYLLIUM	0.09	UG/L	TR1	B	0.05	V1
GS10	01D0790-004	05/03/2001	REAL	CADMIUM D	0.13	UG/L	TR1	B	0.08	J1
GS10	01D0790-020	05/03/2001	DUP	CADMIUM D	0.10	UG/L	TR1	B	0.08	J1
GS10	01D0790-004	05/03/2001	REAL	CHROMIUM	6.20	UG/L	TR1		0.22	V1
GS10	01D0790-020	05/03/2001	DUP	CHROMIUM	1.00	UG/L	TR1	B	0.22	V1
GS10	01D0790-004	05/03/2001	REAL	HARDNESS, TOTAL	62.0	MG/L	TR1		1.0	V1
GS10	01D0790-020	05/03/2001	DUP	HARDNESS, TOTAL	64.0	MG/L	TR1		1.0	V1
GS10	01D0790-004	05/03/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0790-020	05/03/2001	DUP	SILVER D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0790-004	05/03/2001	REAL	TOTAL SUSPENDED SOLIDS	48.0	MG/L	TR1		5.0	V1
GS10	01D0790-020	05/03/2001	DUP	TOTAL SUSPENDED SOLIDS	71.0	MG/L	TR1		5.0	V1
GS10	01D0790-003	05/05/2001	REAL	BERYLLIUM	0.21	UG/L	TR1	B	0.05	V1
GS10	01D0868-004	05/05/2001	REAL	BERYLLIUM	0.22	UG/L	TR1	B	0.05	UJ1
GS10	01D0790-003	05/05/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	J1
GS10	01D0868-004	05/05/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
GS10	01D0790-003	05/05/2001	REAL	CHROMIUM	5.20	UG/L	TR1		0.22	V1
GS10	01D0868-004	05/05/2001	REAL	CHROMIUM	4.60	UG/L	TR1		0.22	V1
GS10	01D0790-003	05/05/2001	REAL	HARDNESS, TOTAL	61.0	MG/L	TR1		1.0	V1
GS10	01D0868-004	05/05/2001	REAL	HARDNESS, TOTAL	260.0	MG/L	TR1		1.0	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	01D0790-003	05/05/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0868-004	05/05/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0790-003	05/05/2001	REAL	TOTAL SUSPENDED SOLIDS	57.0	MG/L	TR1		5.0	V1
GS10	01D0905-001	05/21/2001	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.05	V1
GS10	01D0905-001	05/21/2001	REAL	CADMIUM_D	0.12	UG/L	TR1	B	0.08	V1
GS10	01D0905-001	05/21/2001	REAL	CHROMIUM	1.70	UG/L	TR1	B	0.22	V1
GS10	01D0905-001	05/21/2001	REAL	HARDNESS, TOTAL	320.0	MG/L	TR1		1.0	V1
GS10	01D0905-001	05/21/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D0931-001	06/01/2001	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.05	V
GS10	01D0931-001	06/01/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
GS10	01D0931-001	06/01/2001	REAL	CHROMIUM	0.56	UG/L	TR1	B	0.22	V
GS10	01D0931-001	06/01/2001	REAL	HARDNESS, TOTAL	380.0	MG/L	TR1		1.0	V1
GS10	01D0931-001	06/01/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V
GS10	01D0931-001	06/01/2001	REAL	TOTAL SUSPENDED SOLIDS	8.0	MG/L	TR1		5.0	V1
GS10	01D0962-003	06/07/2001	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.05	V1
GS10	01D0962-003	06/07/2001	REAL	CADMIUM_D	0.12	UG/L	TR1	B	0.08	UJ1
GS10	01D0962-003	06/07/2001	REAL	CHROMIUM	4.60	UG/L	TR1		0.22	V1
GS10	01D0962-003	06/07/2001	REAL	HARDNESS, TOTAL	280.0	MG/L	TR1		1.0	V1
GS10	01D0962-003	06/07/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D1022-002	06/15/2001	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.05	UJ1
GS10	01D1022-002	06/15/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	01D1022-002	06/15/2001	REAL	CHROMIUM	0.65	UG/L	TR1	B	0.22	V1
GS10	01D1022-002	06/15/2001	REAL	HARDNESS, TOTAL	430.0	MG/L	TR1		1.0	V1
GS10	01D1022-002	06/15/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	R1
GS10	01D1022-002	06/15/2001	REAL	SILVER_D	0.25	UG/L	TR2	U	0.25	1
GS10	01D1083-001	07/02/2001	REAL	BERYLLIUM	0.22	UG/L	TR1	B	0.05	J1
GS10	01D1083-001	07/02/2001	REAL	CADMIUM_D	0.12	UG/L	TR1	B	0.08	V1
GS10	01D1083-001	07/02/2001	REAL	CHROMIUM	5.50	UG/L	TR1		0.22	V1
GS10	01D1083-001	07/02/2001	REAL	HARDNESS, TOTAL	160.0	MG/L	TR1		1.0	V1
GS10	01D1083-001	07/02/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D1083-002	07/12/2001	REAL	BERYLLIUM	0.93	UG/L	TR1	B	0.05	V1
GS10	01D1083-002	07/12/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	01D1083-002	07/12/2001	REAL	CHROMIUM	23.20	UG/L	TR1		0.22	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	01D1083-002	07/12/2001	REAL	HARDNESS, TOTAL	92.0	MG/L	TR1		1.0	V1
GS10	01D1083-002	07/12/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
GS10	01D1083-002	07/12/2001	REAL	TOTAL SUSPENDED SOLIDS	520.0	MG/L	TR1		5.0	V1
GS10	01D1181-001	07/15/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	J1
GS10	01D1181-001	07/15/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	J1
GS10	01D1181-001	07/15/2001	REAL	CHROMIUM	0.22	UG/L	TR1	U	0.22	J1
GS10	01D1181-001	07/15/2001	REAL	HARDNESS, TOTAL	386.0	MG/L	TR1		2.0	V1
GS10	01D1181-001	07/15/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	J1
GS10	01D1237-006	08/01/2001	REAL	BERYLLIUM	0.32	UG/L	TR1	B	0.05	V1
GS10	01D1237-006	08/01/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
GS10	01D1237-006	08/01/2001	REAL	CHROMIUM	8.00	UG/L	TR1		0.35	V1
GS10	01D1237-006	08/01/2001	REAL	HARDNESS, TOTAL	147.0	MG/L	TR1		2.0	V1
GS10	01D1237-006	08/01/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	V1
GS10	01D1343-001	08/09/2001	REAL	BERYLLIUM	0.21	UG/L	TR1	B	0.05	V
GS10	01D1343-001	08/09/2001	REAL	CADMIUM D	0.21	UG/L	TR1	B	0.08	V
GS10	01D1343-001	08/09/2001	REAL	CHROMIUM	5.10	UG/L	TR1		0.35	V
GS10	01D1343-001	08/09/2001	REAL	HARDNESS, TOTAL	150.0	MG/L	TR1		2.0	V1
GS10	01D1343-001	08/09/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	J
GS10	01D1387-005	08/20/2001	REAL	BERYLLIUM	0.68	UG/L	TR1	B	0.20	V1
GS10	01D1387-005	08/20/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
GS10	01D1387-005	08/20/2001	REAL	CHROMIUM	10.70	UG/L	TR1		1.40	V1
GS10	01D1387-005	08/20/2001	REAL	HARDNESS, TOTAL	140.0	MG/L	TR1		2.0	V1
GS10	01D1387-005	08/20/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	J1
GS10	01D1389-001	09/08/2001	REAL	BERYLLIUM	0.13	UG/L	TR1	B	0.05	V1
GS10	01D1389-001	09/08/2001	REAL	CADMIUM D	0.08	UG/L	TR1	B	0.08	V1
GS10	01D1389-001	09/08/2001	REAL	CHROMIUM	1.70	UG/L	TR1	B	0.35	V1
GS10	01D1389-001	09/08/2001	REAL	HARDNESS, TOTAL	226.0	MG/L	TR1		2.0	V1
GS10	01D1389-001	09/08/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	J1
GS10	02D0002-002	09/18/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	J1
GS10	02D0002-002	09/18/2001	REAL	CADMIUM D	0.08	UG/L	TR1	B	0.08	V1
GS10	02D0002-002	09/18/2001	REAL	CHROMIUM	1.40	UG/L	TR1	B	0.35	UJ1
GS10	02D0002-002	09/18/2001	REAL	HARDNESS, TOTAL	470.0	MG/L	TR1	J	2.0	V1
GS10	02D0002-002	09/18/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS11	01D0239-004	11/13/2000	REAL	TOTAL SUSPENDED SOLIDS	7.0	MG/L	TR1		5.0	J1
GS11	01D0800-003	05/06/2001	REAL	TOTAL SUSPENDED SOLIDS	23.0	MG/L	TR1		5.0	V1
GS11	01D0805-002	05/08/2001	REAL	TOTAL SUSPENDED SOLIDS	12.0	MG/L	TR1		5.0	V1
GS11	01D0811-001	05/10/2001	REAL	TOTAL SUSPENDED SOLIDS	9.0	MG/L	TR1		5.0	V1
GS11	01D0827-004	05/13/2001	REAL	TOTAL SUSPENDED SOLIDS	9.0	MG/L	TR1		5.0	V
GS11	01D0861-006	05/16/2001	REAL	TOTAL SUSPENDED SOLIDS	14.0	MG/L	TR1		5.0	J
GS11	01D1306-006	08/16/2001	REAL	TOTAL SUSPENDED SOLIDS	9.2	MG/L	TR1		1.9	V1
GS11	01D1343-002	08/19/2001	REAL	TOTAL SUSPENDED SOLIDS	12.0	MG/L	TR1		2.9	V1
GS27	01D0592-002	03/10/2001	REAL	TOTAL SUSPENDED SOLIDS	12.0	MG/L	TR1		5.0	V1
GS27	01D0737-011	04/21/2001	REAL	TOTAL SUSPENDED SOLIDS	23.0	MG/L	TR1		5.0	V
GS27	01D0868-002	05/18/2001	REAL	TOTAL SUSPENDED SOLIDS	320.0	MG/L	TR1		5.0	V1
GS27	01D0962-001	06/13/2001	REAL	TOTAL SUSPENDED SOLIDS	27.0	MG/L	TR1		5.0	V1
GS27	01D1058-003	07/10/2001	REAL	TOTAL SUSPENDED SOLIDS	100.0	MG/L	TR1		5.0	V
GS27	01D1083-004	07/13/2001	REAL	TOTAL SUSPENDED SOLIDS	100.0	MG/L	TR1		5.0	V1
GS27	01D1237-012	08/09/2001	REAL	TOTAL SUSPENDED SOLIDS	66.6	MG/L	TR1		1.9	J1
GS27	01D1387-006	09/08/2001	REAL	TOTAL SUSPENDED SOLIDS	15.0	MG/L	TR1		2.0	V1
GS31	01D0975-001	06/15/2001	REAL	TOTAL SUSPENDED SOLIDS	5.0	MG/L	TR1	U	5.0	V1
GS31	01D0995-001	06/20/2001	REAL	TOTAL SUSPENDED SOLIDS	8.0	MG/L	TR1		5.0	V1
GS31	01D0995-002	06/25/2001	REAL	TOTAL SUSPENDED SOLIDS	48.0	MG/L	TR1		5.0	V1
GS32	01D0190-002	10/22/2000	REAL	ALUMINUM	3060.00	UG/L	TR1		2.60	1
GS32	01D0190-002	10/22/2000	REAL	ANTIMONY	6.10	UG/L	TR1		0.52	UJ1
GS32	01D0190-002	10/22/2000	REAL	ARSENIC	2.00	UG/L	TR1	B	0.85	1
GS32	01D0190-002	10/22/2000	REAL	BARIUM	72.00	UG/L	TR1	B	0.05	1
GS32	01D0190-002	10/22/2000	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.02	1
GS32	01D0190-002	10/22/2000	REAL	CADMIUM	0.29	UG/L	TR1	B	0.08	1
GS32	01D0190-002	10/22/2000	REAL	CALCIUM	33300.00	UG/L	TR1		2.20	1
GS32	01D0190-002	10/22/2000	REAL	CHROMIUM	4.50	UG/L	TR1		0.22	1
GS32	01D0190-002	10/22/2000	REAL	COBALT	1.30	UG/L	TR1	B	0.20	1
GS32	01D0190-002	10/22/2000	REAL	COPPER	13.90	UG/L	TR1		0.20	1
GS32	01D0190-002	10/22/2000	REAL	IRON	2900.00	UG/L	TR1		4.10	1
GS32	01D0190-002	10/22/2000	REAL	LEAD	8.00	UG/L	TR1		0.52	1
GS32	01D0190-002	10/22/2000	REAL	LITHIUM	8.30	UG/L	TR1	B	0.05	J1
GS32	01D0190-002	10/22/2000	REAL	MAGNESIUM	5700.00	UG/L	TR1		2.00	1

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GS32	01D0190-002	10/22/2000	REAL	MANGANESE	117.00	UG/L	TR1		0.05	1
GS32	01D0190-002	10/22/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	1
GS32	01D0190-002	10/22/2000	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.22	1
GS32	01D0190-002	10/22/2000	REAL	NICKEL	3.80	UG/L	TR1	B	0.30	1
GS32	01D0190-002	10/22/2000	REAL	POTASSIUM	7200.00	UG/L	TR1		7.50	J1
GS32	01D0190-002	10/22/2000	REAL	SELENIUM	1.10	UG/L	TR1	U	1.10	1
GS32	01D0190-002	10/22/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	1
GS32	01D0190-002	10/22/2000	REAL	SODIUM	37400.00	UG/L	TR1		6.80	1
GS32	01D0190-002	10/22/2000	REAL	STRONTIUM	199.00	UG/L	TR1	B	0.02	1
GS32	01D0190-002	10/22/2000	REAL	THALLIUM	0.90	UG/L	TR1	U	0.90	1
GS32	01D0190-002	10/22/2000	REAL	TIN	0.52	UG/L	TR1	U	0.52	1
GS32	01D0190-002	10/22/2000	REAL	TOTAL SUSPENDED SOLIDS	100.0	MG/L	TR1		5.0	V
GS32	01D0190-002	10/22/2000	REAL	VANADIUM	9.00	UG/L	TR1	B	0.22	1
GS32	01D0190-002	10/22/2000	REAL	ZINC	284.00	UG/L	TR1		0.10	1
GS32	01D0507-002	01/18/2001	REAL	ALUMINUM	4770.00	UG/L	TR1	*	15.00	J1
GS32	01D0507-002	01/18/2001	REAL	ANTIMONY	0.75	UG/L	TR1	U	3.00	V1
GS32	01D0507-002	01/18/2001	REAL	ARSENIC	3.10	UG/L	TR1	B	3.00	V1
GS32	01D0507-002	01/18/2001	REAL	BARIUM	334.00	UG/L	TR1	E	1.00	J1
GS32	01D0507-002	01/18/2001	REAL	BERYLLIUM	0.71	UG/L	TR1	B	1.00	J1
GS32	01D0507-002	01/18/2001	REAL	CADMIUM	3.00	UG/L	TR1		1.00	J1
GS32	01D0507-002	01/18/2001	REAL	CALCIUM	120000.00	UG/L	TR1	E	7.00	J1
GS32	01D0507-002	01/18/2001	REAL	CHROMIUM	8.60	UG/L	TR1		1.00	V1
GS32	01D0507-002	01/18/2001	REAL	COBALT	3.70	UG/L	TR1	B	2.00	V1
GS32	01D0507-002	01/18/2001	REAL	COPPER	48.30	UG/L	TR1		1.00	V1
GS32	01D0507-002	01/18/2001	REAL	IRON	9520.00	UG/L	TR1		18.00	V1
GS32	01D0507-002	01/18/2001	REAL	LEAD	20.00	UG/L	TR1		2.00	V1
GS32	01D0507-002	01/18/2001	REAL	LITHIUM	45.00	UG/L	TR1	BN	1.00	J1
GS32	01D0507-002	01/18/2001	REAL	MAGNESIUM	10100.00	UG/L	TR1	E	73.00	J1
GS32	01D0507-002	01/18/2001	REAL	MANGANESE	616.00	UG/L	TR1	E	2.00	J1
GS32	01D0507-002	01/18/2001	REAL	MERCURY	0.15	UG/L	TR1		0.10	J1
GS32	01D0507-002	01/18/2001	REAL	MOLYBDENUM	4.60	UG/L	TR1	B	2.00	V1
GS32	01D0507-002	01/18/2001	REAL	NICKEL	9.60	UG/L	TR1	B	2.00	J1
GS32	01D0507-002	01/18/2001	REAL	POTASSIUM	241000.00	UG/L	TR1	BEN	#####	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	01D0507-002	01/18/2001	REAL	SELENIUM	1.20	UG/L	TR1	U	5.00	V1
GS32	01D0507-002	01/18/2001	REAL	SILVER	0.25	UG/L	TR1	U	1.00	V1
GS32	01D0507-002	01/18/2001	REAL	SODIUM	1410000.00	UG/L	TR1	BE	6000.00	J1
GS32	01D0507-002	01/18/2001	REAL	STRONTIUM	774.00	UG/L	TR1	E	1.00	J1
GS32	01D0507-002	01/18/2001	REAL	THALLIUM	1.50	UG/L	TR1	U	6.00	V1
GS32	01D0507-002	01/18/2001	REAL	TIN	2.50	UG/L	TR1	B	6.00	V1
GS32	01D0507-002	01/18/2001	REAL	VANADIUM	14.50	UG/L	TR1	B	1.00	V1
GS32	01D0507-002	01/18/2001	REAL	ZINC	7620.00	UG/L	TR1	B	1000.00	J1
GS32	01D0548-011	03/10/2001	REAL	ALUMINUM	15600.00	UG/L	TR1		3.10	V1
GS32	01D0548-011	03/10/2001	REAL	ANTIMONY	10.50	UG/L	TR1		0.42	V1
GS32	01D0548-011	03/10/2001	REAL	ARSENIC	4.80	UG/L	TR1	B	0.80	V1
GS32	01D0548-011	03/10/2001	REAL	BARIUM	189.00	UG/L	TR1		0.05	V1
GS32	01D0548-011	03/10/2001	REAL	BERYLLIUM	0.70	UG/L	TR1	B	0.02	V1
GS32	01D0548-011	03/10/2001	REAL	CADMIUM	1.40	UG/L	TR1		0.08	V1
GS32	01D0548-011	03/10/2001	REAL	CALCIUM	64800.00	UG/L	TR1		31.20	V1
GS32	01D0548-011	03/10/2001	REAL	CHROMIUM	16.90	UG/L	TR1		0.18	V1
GS32	01D0548-011	03/10/2001	REAL	COBALT	4.10	UG/L	TR1	B	0.18	UJ1
GS32	01D0548-011	03/10/2001	REAL	COPPER	48.00	UG/L	TR1		0.15	V1
GS32	01D0548-011	03/10/2001	REAL	IRON	12700.00	UG/L	TR1		4.40	V1
GS32	01D0548-011	03/10/2001	REAL	LEAD	24.10	UG/L	TR1		0.55	V1
GS32	01D0548-011	03/10/2001	REAL	LITHIUM	66.40	UG/L	TR1	B	0.05	J1
GS32	01D0548-011	03/10/2001	REAL	MAGNESIUM	9830.00	UG/L	TR1		1.50	V1
GS32	01D0548-011	03/10/2001	REAL	MANGANESE	346.00	UG/L	TR1		0.05	V1
GS32	01D0548-011	03/10/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	01D0548-011	03/10/2001	REAL	MOLYBDENUM	3.40	UG/L	TR1	B	0.25	V1
GS32	01D0548-011	03/10/2001	REAL	NICKEL	13.00	UG/L	TR1	B	0.28	V1
GS32	01D0548-011	03/10/2001	REAL	POTASSIUM	26600.00	UG/L	TR1		611.00	V1
GS32	01D0548-011	03/10/2001	REAL	SELENIUM	0.78	UG/L	TR1	U	0.78	V1
GS32	01D0548-011	03/10/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS32	01D0548-011	03/10/2001	REAL	SODIUM	1090000.00	UG/L	TR1		31.10	V1
GS32	01D0548-011	03/10/2001	REAL	STRONTIUM	446.00	UG/L	TR1		0.02	V1
GS32	01D0548-011	03/10/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	J1
GS32	01D0548-011	03/10/2001	REAL	TIN	0.95	UG/L	TR1	B	0.58	UJ1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	01D0548-011	03/10/2001	REAL	TOTAL SUSPENDED SOLIDS	210.0	MG/L	TR1		5.0	V
GS32	01D0548-011	03/10/2001	REAL	VANADIUM	30.30	UG/L	TR1	B	0.15	V1
GS32	01D0548-011	03/10/2001	REAL	ZINC	3850.00	UG/L	TR1		0.12	V1
GS32	01D0962-002	06/13/2001	REAL	ALUMINUM	4090.00	UG/L	TR1		3.20	V1
GS32	01D0962-002	06/13/2001	REAL	ANTIMONY	5.70	UG/L	TR1		0.48	V1
GS32	01D0962-002	06/13/2001	REAL	ARSENIC	3.10	UG/L	TR1	B	0.58	V1
GS32	01D0962-002	06/13/2001	REAL	BARIUM	85.10	UG/L	TR1	B	0.05	V1
GS32	01D0962-002	06/13/2001	REAL	BERYLLIUM	0.24	UG/L	TR1	B	0.05	V1
GS32	01D0962-002	06/13/2001	REAL	CADMIUM	0.62	UG/L	TR1	B	0.08	V1
GS32	01D0962-002	06/13/2001	REAL	CALCIUM	37500.00	UG/L	TR1		2.00	V1
GS32	01D0962-002	06/13/2001	REAL	CHROMIUM	6.00	UG/L	TR1		0.22	V1
GS32	01D0962-002	06/13/2001	REAL	COBALT	1.80	UG/L	TR1	B	0.20	V1
GS32	01D0962-002	06/13/2001	REAL	COPPER	18.40	UG/L	TR1		0.18	V1
GS32	01D0962-002	06/13/2001	REAL	IRON	4340.00	UG/L	TR1		3.90	V1
GS32	01D0962-002	06/13/2001	REAL	LEAD	10.60	UG/L	TR1		0.65	V1
GS32	01D0962-002	06/13/2001	REAL	LITHIUM	14.40	UG/L	TR1	B	0.05	V1
GS32	01D0962-002	06/13/2001	REAL	MAGNESIUM	4890.00	UG/L	TR1	B	2.20	V1
GS32	01D0962-002	06/13/2001	REAL	MANGANESE	225.00	UG/L	TR1		0.02	V1
GS32	01D0962-002	06/13/2001	REAL	MERCURY	0.10	UG/L	TR1		0.10	V1
GS32	01D0962-002	06/13/2001	REAL	MOLYBDENUM	3.50	UG/L	TR1	B	0.25	V1
GS32	01D0962-002	06/13/2001	REAL	NICKEL	5.50	UG/L	TR1	B	0.30	V1
GS32	01D0962-002	06/13/2001	REAL	POTASSIUM	16600.00	UG/L	TR1		8.80	J1
GS32	01D0962-002	06/13/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	J1
GS32	01D0962-002	06/13/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS32	01D0962-002	06/13/2001	REAL	SODIUM	90900.00	UG/L	TR1		2.10	V1
GS32	01D0962-002	06/13/2001	REAL	STRONTIUM	202.00	UG/L	TR1		0.02	V1
GS32	01D0962-002	06/13/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS32	01D0962-002	06/13/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS32	01D0962-002	06/13/2001	REAL	TOTAL SUSPENDED SOLIDS	120.0	MG/L	TR1		5.0	V1
GS32	01D0962-002	06/13/2001	REAL	VANADIUM	12.20	UG/L	TR1	B	0.18	V1
GS32	01D0962-002	06/13/2001	REAL	ZINC	1050.00	UG/L	TR1		0.08	J1
GS32	01D1065-001	07/06/2001	REAL	ALUMINUM	14100.00	UG/L	TR1		3.20	V1
GS32	01D1065-001	07/06/2001	REAL	ANTIMONY	15.70	UG/L	TR1		0.48	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	01D1065-001	07/06/2001	REAL	ARSENIC	7.10	UG/L	TR1		0.58	V1
GS32	01D1065-001	07/06/2001	REAL	BARIUM	175.00	UG/L	TR1		0.05	V1
GS32	01D1065-001	07/06/2001	REAL	BERYLLIUM	0.86	UG/L	TR1	B	0.05	V1
GS32	01D1065-001	07/06/2001	REAL	CADMIUM	1.80	UG/L	TR1		0.08	V1
GS32	01D1065-001	07/06/2001	REAL	CALCIUM	59800.00	UG/L	TR1		2.00	V1
GS32	01D1065-001	07/06/2001	REAL	CHROMIUM	22.30	UG/L	TR1		0.22	V1
GS32	01D1065-001	07/06/2001	REAL	COBALT	5.50	UG/L	TR1	B	0.20	V1
GS32	01D1065-001	07/06/2001	REAL	COPPER	51.40	UG/L	TR1		0.18	V1
GS32	01D1065-001	07/06/2001	REAL	IRON	15500.00	UG/L	TR1		3.90	V1
GS32	01D1065-001	07/06/2001	REAL	LEAD	51.30	UG/L	TR1		0.65	V1
GS32	01D1065-001	07/06/2001	REAL	LITHIUM	27.00	UG/L	TR1	B	0.05	J1
GS32	01D1065-001	07/06/2001	REAL	MAGNESIUM	7070.00	UG/L	TR1		2.20	J1
GS32	01D1065-001	07/06/2001	REAL	MANGANESE	419.00	UG/L	TR1		0.02	V1
GS32	01D1065-001	07/06/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	01D1065-001	07/06/2001	REAL	MOLYBDENUM	4.80	UG/L	TR1	B	0.25	V1
GS32	01D1065-001	07/06/2001	REAL	NICKEL	16.60	UG/L	TR1	B	0.30	V1
GS32	01D1065-001	07/06/2001	REAL	POTASSIUM	20300.00	UG/L	TR1		8.80	J1
GS32	01D1065-001	07/06/2001	REAL	SELENIUM	1.70	UG/L	TR1	B	0.65	UJ1
GS32	01D1065-001	07/06/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS32	01D1065-001	07/06/2001	REAL	SODIUM	116000.00	UG/L	TR1		24.20	V1
GS32	01D1065-001	07/06/2001	REAL	STRONTIUM	253.00	UG/L	TR1		0.02	V1
GS32	01D1065-001	07/06/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS32	01D1065-001	07/06/2001	REAL	TIN	1.50	UG/L	TR1	B	0.88	V1
GS32	01D1065-001	07/06/2001	REAL	TOTAL SUSPENDED SOLIDS	440.0	MG/L	TR1		5.0	V1
GS32	01D1065-001	07/06/2001	REAL	VANADIUM	37.70	UG/L	TR1	B	0.18	V1
GS32	01D1065-001	07/06/2001	REAL	ZINC	1240.00	UG/L	TR1		0.08	V1
GS32	01D1237-010	08/09/2001	REAL	ALUMINUM	30200.00	UG/L	TR1		4.00	V1
GS32	01D1237-010	08/09/2001	REAL	ANTIMONY	31.50	UG/L	TR1		0.58	V1
GS32	01D1237-010	08/09/2001	REAL	ARSENIC	12.60	UG/L	TR1		0.98	V1
GS32	01D1237-010	08/09/2001	REAL	BARIUM	289.00	UG/L	TR1		0.02	V1
GS32	01D1237-010	08/09/2001	REAL	BERYLLIUM	1.40	UG/L	TR1		0.05	V1
GS32	01D1237-010	08/09/2001	REAL	CADMIUM	2.80	UG/L	TR1		0.08	V1
GS32	01D1237-010	08/09/2001	REAL	CALCIUM	76600.00	UG/L	TR1		2.00	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	01D1237-010	08/09/2001	REAL	CHROMIUM	48.80	UG/L	TR1		0.35	V1
GS32	01D1237-010	08/09/2001	REAL	COBALT	12.30	UG/L	TR1	B	0.22	V1
GS32	01D1237-010	08/09/2001	REAL	COPPER	100.00	UG/L	TR1		0.12	V1
GS32	01D1237-010	08/09/2001	REAL	IRON	35500.00	UG/L	TR1		3.90	V1
GS32	01D1237-010	08/09/2001	REAL	LEAD	91.80	UG/L	TR1		0.60	V1
GS32	01D1237-010	08/09/2001	REAL	LITHIUM	33.10	UG/L	TR1	B	0.15	J1
GS32	01D1237-010	08/09/2001	REAL	MAGNESIUM	10500.00	UG/L	TR1		2.00	V1
GS32	01D1237-010	08/09/2001	REAL	MANGANESE	767.00	UG/L	TR1		0.02	V1
GS32	01D1237-010	08/09/2001	REAL	MERCURY	0.12	UG/L	TR1		0.10	V1
GS32	01D1237-010	08/09/2001	REAL	MOLYBDENUM	3.70	UG/L	TR1	B	0.25	V1
GS32	01D1237-010	08/09/2001	REAL	NICKEL	32.20	UG/L	TR1		0.42	V1
GS32	01D1237-010	08/09/2001	REAL	POTASSIUM	13600.00	UG/L	TR1	B	16.00	V1
GS32	01D1237-010	08/09/2001	REAL	SELENIUM	2.00	UG/L	TR1	B	0.80	V1
GS32	01D1237-010	08/09/2001	REAL	SILVER	0.41	UG/L	TR1	B	0.12	V1
GS32	01D1237-010	08/09/2001	REAL	SODIUM	28000.00	UG/L	TR1	B	2.40	V1
GS32	01D1237-010	08/09/2001	REAL	STRONTIUM	205.00	UG/L	TR1		0.02	V1
GS32	01D1237-010	08/09/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS32	01D1237-010	08/09/2001	REAL	TIN	3.50	UG/L	TR1	B	0.98	V1
GS32	01D1237-010	08/09/2001	REAL	VANADIUM	79.40	UG/L	TR1		0.12	V1
GS32	01D1237-010	08/09/2001	REAL	ZINC	1710.00	UG/L	TR1		0.10	V1
GS32	01D1387-003	09/07/2001	REAL	ALUMINUM	3550.00	UG/L	TR1		4.00	V1
GS32	01D1387-003	09/07/2001	REAL	ANTIMONY	6.80	UG/L	TR1		0.58	V1
GS32	01D1387-003	09/07/2001	REAL	ARSENIC	2.40	UG/L	TR1	B	0.98	V1
GS32	01D1387-003	09/07/2001	REAL	BARIUM	97.90	UG/L	TR1	B	0.02	V1
GS32	01D1387-003	09/07/2001	REAL	BERYLLIUM	0.27	UG/L	TR1	B	0.05	V1
GS32	01D1387-003	09/07/2001	REAL	CADMIUM	0.90	UG/L	TR1	B	0.08	V1
GS32	01D1387-003	09/07/2001	REAL	CALCIUM	37500.00	UG/L	TR1		2.00	V1
GS32	01D1387-003	09/07/2001	REAL	CHROMIUM	7.10	UG/L	TR1		0.35	V1
GS32	01D1387-003	09/07/2001	REAL	COBALT	2.20	UG/L	TR1	B	0.22	V1
GS32	01D1387-003	09/07/2001	REAL	COPPER	27.40	UG/L	TR1		0.10	V1
GS32	01D1387-003	09/07/2001	REAL	IRON	4040.00	UG/L	TR1		3.90	V1
GS32	01D1387-003	09/07/2001	REAL	LEAD	12.50	UG/L	TR1		0.60	V1
GS32	01D1387-003	09/07/2001	REAL	LITHIUM	11.10	UG/L	TR1	B	0.02	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	01D1387-003	09/07/2001	REAL	MAGNESIUM	3860.00	UG/L	TR1	B	2.00	V1
GS32	01D1387-003	09/07/2001	REAL	MANGANESE	189.00	UG/L	TR1		0.02	V1
GS32	01D1387-003	09/07/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	01D1387-003	09/07/2001	REAL	MOLYBDENUM	2.80	UG/L	TR1	B	0.25	V1
GS32	01D1387-003	09/07/2001	REAL	NICKEL	7.10	UG/L	TR1	B	0.42	V1
GS32	01D1387-003	09/07/2001	REAL	POTASSIUM	11300.00	UG/L	TR1		2.70	V1
GS32	01D1387-003	09/07/2001	REAL	SELENIUM	1.30	UG/L	TR1	B	0.80	V1
GS32	01D1387-003	09/07/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS32	01D1387-003	09/07/2001	REAL	SODIUM	72300.00	UG/L	TR1		181.00	V1
GS32	01D1387-003	09/07/2001	REAL	STRONTIUM	179.00	UG/L	TR1	B	0.02	V1
GS32	01D1387-003	09/07/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS32	01D1387-003	09/07/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1
GS32	01D1387-003	09/07/2001	REAL	TOTAL SUSPENDED SOLIDS	150.0	MG/L	TR1		5.0	V1
GS32	01D1387-003	09/07/2001	REAL	VANADIUM	11.70	UG/L	TR1	B	0.12	V1
GS32	01D1387-003	09/07/2001	REAL	ZINC	847.00	UG/L	TR1		0.10	V1
GS38	01D0692-001	04/12/2001	REAL	TOTAL SUSPENDED SOLIDS	130.0	MG/L	TR1		5.0	V1
GS38	01D0790-005	05/04/2001	REAL	TOTAL SUSPENDED SOLIDS	53.0	MG/L	TR1		5.0	V1
GS38	01D1083-005	07/11/2001	REAL	TOTAL SUSPENDED SOLIDS	130.0	MG/L	TR1		5.0	V1
GS39	01D0692-002	04/12/2001	REAL	TOTAL SUSPENDED SOLIDS	160.0	MG/L	TR1		5.0	V1
GS39	01D0790-006	05/04/2001	REAL	TOTAL SUSPENDED SOLIDS	47.0	MG/L	TR1		5.0	V1
GS39	01D1083-007	07/11/2001	REAL	TOTAL SUSPENDED SOLIDS	290.0	MG/L	TR1		5.0	V1
GS39	01D1237-009	08/09/2001	REAL	TOTAL SUSPENDED SOLIDS	141.0	MG/L	TR1		1.9	J1
GS40	01D0225-006	10/21/2000	REAL	ALUMINUM	272.00	UG/L	TR1		5.70	J
GS40	01D0225-006	10/21/2000	REAL	ANTIMONY	12.90	UG/L	TR1		0.58	V
GS40	01D0225-006	10/21/2000	REAL	ARSENIC	0.60	UG/L	TR1	U	0.60	J
GS40	01D0225-006	10/21/2000	REAL	BARIUM	208.00	UG/L	TR1		0.05	V
GS40	01D0225-006	10/21/2000	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J
GS40	01D0225-006	10/21/2000	REAL	CADMIUM	0.43	UG/L	TR1	B	0.08	J
GS40	01D0225-006	10/21/2000	REAL	CALCIUM	83600.00	UG/L	TR1		4.80	V
GS40	01D0225-006	10/21/2000	REAL	CHROMIUM	0.43	UG/L	TR1	B	0.15	J
GS40	01D0225-006	10/21/2000	REAL	COBALT	0.22	UG/L	TR1	U	0.22	V
GS40	01D0225-006	10/21/2000	REAL	COPPER	3.20	UG/L	TR1		0.22	V
GS40	01D0225-006	10/21/2000	REAL	IRON	976.00	UG/L	TR1		5.40	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0225-006	10/21/2000	REAL	LEAD	0.52	UG/L	TR1	U	0.52	V
GS40	01D0225-006	10/21/2000	REAL	LITHIUM	10.40	UG/L	TR1	B	0.05	V
GS40	01D0225-006	10/21/2000	REAL	MAGNESIUM	21900.00	UG/L	TR1		1.70	V
GS40	01D0225-006	10/21/2000	REAL	MANGANESE	293.00	UG/L	TR1		0.05	V
GS40	01D0225-006	10/21/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J
GS40	01D0225-006	10/21/2000	REAL	MOLYBDENUM	1.60	UG/L	TR1	B	0.25	V
GS40	01D0225-006	10/21/2000	REAL	NICKEL	1.20	UG/L	TR1	B	0.22	V
GS40	01D0225-006	10/21/2000	REAL	POTASSIUM	23600.00	UG/L	TR1		10.20	V
GS40	01D0225-006	10/21/2000	REAL	SELENIUM	0.82	UG/L	TR1	U	0.82	V
GS40	01D0225-006	10/21/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V
GS40	01D0225-006	10/21/2000	REAL	SODIUM	198000.00	UG/L	TR1		1.00	J
GS40	01D0225-006	10/21/2000	REAL	STRONTIUM	645.00	UG/L	TR1		0.02	V
GS40	01D0225-006	10/21/2000	REAL	THALLIUM	1.00	UG/L	TR1	U	1.00	V
GS40	01D0225-006	10/21/2000	REAL	TIN	0.65	UG/L	TR1	U	0.65	V
GS40	01D0225-006	10/21/2000	REAL	VANADIUM	1.00	UG/L	TR1	B	0.20	UJ
GS40	01D0225-006	10/21/2000	REAL	ZINC	104.00	UG/L	TR1		0.10	V
GS40	01D0329-003	11/29/2000	REAL	ALUMINUM	906.00	UG/L	TR1		5.70	1
GS40	01D0329-003	11/29/2000	REAL	ALUMINUM	875.00	UG/L	TR2		5.70	1
GS40	01D0329-003	11/29/2000	REAL	ANTIMONY	6.70	UG/L	TR1		0.58	1
GS40	01D0329-003	11/29/2000	REAL	ANTIMONY	6.10	UG/L	TR2		0.58	1
GS40	01D0329-003	11/29/2000	REAL	ARSENIC	2.40	UG/L	TR1	B	0.60	1
GS40	01D0329-003	11/29/2000	REAL	ARSENIC	3.00	UG/L	TR2	B	0.60	1
GS40	01D0329-003	11/29/2000	REAL	BARIUM	501.00	UG/L	TR1		0.05	V1
GS40	01D0329-003	11/29/2000	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.02	UJ1
GS40	01D0329-003	11/29/2000	REAL	CADMIUM	1.50	UG/L	TR1		0.08	V1
GS40	01D0329-003	11/29/2000	REAL	CALCIUM	169000.00	UG/L	TR1		96.00	V1
GS40	01D0329-003	11/29/2000	REAL	CHROMIUM	1.20	UG/L	TR1	B	0.15	V1
GS40	01D0329-003	11/29/2000	REAL	COBALT	1.70	UG/L	TR1	B	0.22	V1
GS40	01D0329-003	11/29/2000	REAL	COPPER	5.60	UG/L	TR1		0.22	V1
GS40	01D0329-003	11/29/2000	REAL	IRON	4470.00	UG/L	TR1		5.40	V1
GS40	01D0329-003	11/29/2000	REAL	LEAD	1.20	UG/L	TR1	B	0.52	V1
GS40	01D0329-003	11/29/2000	REAL	LITHIUM	30.80	UG/L	TR1	B	0.05	J1
GS40	01D0329-003	11/29/2000	REAL	MAGNESIUM	45700.00	UG/L	TR1		1.70	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0329-003	11/29/2000	REAL	MANGANESE	2210.00	UG/L	TR1		0.05	V1
GS40	01D0329-003	11/29/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	01D0329-003	11/29/2000	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.25	V1
GS40	01D0329-003	11/29/2000	REAL	NICKEL	2.80	UG/L	TR1	B	0.22	V1
GS40	01D0329-003	11/29/2000	REAL	POTASSIUM	21200.00	UG/L	TR1	B	204.00	J1
GS40	01D0329-003	11/29/2000	REAL	SELENIUM	0.83	UG/L	TR1	B	0.82	UJ1
GS40	01D0329-003	11/29/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS40	01D0329-003	11/29/2000	REAL	SODIUM	1010000.00	UG/L	TR1		102.00	V1
GS40	01D0329-003	11/29/2000	REAL	STRONTIUM	1330.00	UG/L	TR1		0.02	V1
GS40	01D0329-003	11/29/2000	REAL	THALLIUM	1.00	UG/L	TR1	U	1.00	V1
GS40	01D0329-003	11/29/2000	REAL	TIN	0.65	UG/L	TR1	U	0.65	J1
GS40	01D0329-003	11/29/2000	REAL	VANADIUM	2.50	UG/L	TR1	B	0.20	V1
GS40	01D0329-003	11/29/2000	REAL	ZINC	361.00	UG/L	TR1		0.10	V1
GS40	01D0348-004	01/09/2001	REAL	ALUMINUM	546.00	UG/L	TR1		5.70	J1
GS40	01D0348-004	01/09/2001	REAL	ANTIMONY	6.80	UG/L	TR1		0.58	V1
GS40	01D0348-004	01/09/2001	REAL	ARSENIC	1.50	UG/L	TR1	B	0.60	V1
GS40	01D0348-004	01/09/2001	REAL	BARIUM	348.00	UG/L	TR1		0.05	V1
GS40	01D0348-004	01/09/2001	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.02	UJ1
GS40	01D0348-004	01/09/2001	REAL	CADMIUM	0.85	UG/L	TR1	B	0.08	V1
GS40	01D0348-004	01/09/2001	REAL	CALCIUM	106000.00	UG/L	TR1		4.80	V1
GS40	01D0348-004	01/09/2001	REAL	CHROMIUM	0.84	UG/L	TR1	B	0.15	V1
GS40	01D0348-004	01/09/2001	REAL	COBALT	1.40	UG/L	TR1	B	0.22	V1
GS40	01D0348-004	01/09/2001	REAL	COPPER	4.20	UG/L	TR1		0.22	V1
GS40	01D0348-004	01/09/2001	REAL	IRON	2720.00	UG/L	TR1		5.40	V1
GS40	01D0348-004	01/09/2001	REAL	LEAD	0.55	UG/L	TR1	B	0.52	V1
GS40	01D0348-004	01/09/2001	REAL	LITHIUM	16.10	UG/L	TR1	B	0.05	J1
GS40	01D0348-004	01/09/2001	REAL	MAGNESIUM	31300.00	UG/L	TR1		1.70	V1
GS40	01D0348-004	01/09/2001	REAL	MANGANESE	1240.00	UG/L	TR1		0.05	V1
GS40	01D0348-004	01/09/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS40	01D0348-004	01/09/2001	REAL	MOLYBDENUM	2.20	UG/L	TR1	B	0.25	V1
GS40	01D0348-004	01/09/2001	REAL	NICKEL	2.20	UG/L	TR1	B	0.22	V1
GS40	01D0348-004	01/09/2001	REAL	POTASSIUM	18500.00	UG/L	TR1	B	204.00	J1
GS40	01D0348-004	01/09/2001	REAL	SELENIUM	0.83	UG/L	TR1	B	0.82	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0348-004	01/09/2001	REAL	SILVER	0.28	UG/L	TR1	U	0.28	UJ1
GS40	01D0348-004	01/09/2001	REAL	SODIUM	658000.00	UG/L	TR1		102.00	V1
GS40	01D0348-004	01/09/2001	REAL	STRONTIUM	884.00	UG/L	TR1		0.02	V1
GS40	01D0348-004	01/09/2001	REAL	THALLIUM	1.00	UG/L	TR1	U	1.00	V1
GS40	01D0348-004	01/09/2001	REAL	TIN	0.65	UG/L	TR1	U	0.65	V1
GS40	01D0348-004	01/09/2001	REAL	VANADIUM	1.30	UG/L	TR1	B	0.20	V1
GS40	01D0348-004	01/09/2001	REAL	ZINC	244.00	UG/L	TR1		0.10	V1
GS40	01D0548-009	02/07/2001	REAL	ALUMINUM	8390.00	UG/L	TR1		3.10	V1
GS40	01D0548-009	02/07/2001	REAL	ANTIMONY	25.80	UG/L	TR1		0.42	V1
GS40	01D0548-009	02/07/2001	REAL	ARSENIC	4.40	UG/L	TR1	B	0.80	V1
GS40	01D0548-009	02/07/2001	REAL	BARIUM	667.00	UG/L	TR1		0.05	V1
GS40	01D0548-009	02/07/2001	REAL	BERYLLIUM	0.52	UG/L	TR1	B	0.02	J1
GS40	01D0548-009	02/07/2001	REAL	CADMIUM	2.40	UG/L	TR1		0.08	V1
GS40	01D0548-009	02/07/2001	REAL	CALCIUM	194000.00	UG/L	TR1		31.20	V1
GS40	01D0548-009	02/07/2001	REAL	CHROMIUM	8.20	UG/L	TR1		0.18	V1
GS40	01D0548-009	02/07/2001	REAL	COBALT	2.90	UG/L	TR1	B	0.18	UJ1
GS40	01D0548-009	02/07/2001	REAL	COPPER	19.90	UG/L	TR1		0.15	V1
GS40	01D0548-009	02/07/2001	REAL	IRON	10300.00	UG/L	TR1		4.40	V1
GS40	01D0548-009	02/07/2001	REAL	LEAD	9.00	UG/L	TR1		0.55	V1
GS40	01D0548-009	02/07/2001	REAL	LITHIUM	73.20	UG/L	TR1	B	0.05	J1
GS40	01D0548-009	02/07/2001	REAL	MAGNESIUM	43000.00	UG/L	TR1		1.50	V1
GS40	01D0548-009	02/07/2001	REAL	MANGANESE	1660.00	UG/L	TR1		0.05	V1
GS40	01D0548-009	02/07/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	01D0548-009	02/07/2001	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.25	V1
GS40	01D0548-009	02/07/2001	REAL	NICKEL	7.80	UG/L	TR1	B	0.28	V1
GS40	01D0548-009	02/07/2001	REAL	POTASSIUM	39600.00	UG/L	TR1		611.00	V1
GS40	01D0548-009	02/07/2001	REAL	SELENIUM	0.78	UG/L	TR1	U	0.78	V1
GS40	01D0548-009	02/07/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS40	01D0548-009	02/07/2001	REAL	SODIUM	1330000.00	UG/L	TR1		31.10	V1
GS40	01D0548-009	02/07/2001	REAL	STRONTIUM	1880.00	UG/L	TR1		0.02	V1
GS40	01D0548-009	02/07/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	J1
GS40	01D0548-009	02/07/2001	REAL	TIN	1.40	UG/L	TR1	B	0.58	UJ1
GS40	01D0548-009	02/07/2001	REAL	VANADIUM	14.20	UG/L	TR1	B	0.15	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0548-009	02/07/2001	REAL	ZINC	656.00	UG/L	TR1		0.12	V1
GS40	01D0684-003	03/13/2001	REAL	ALUMINUM	3810.00	UG/L	TR1		3.10	V1
GS40	01D0684-003	03/13/2001	REAL	ANTIMONY	22.90	UG/L	TR1		0.42	V1
GS40	01D0684-003	03/13/2001	REAL	ARSENIC	2.00	UG/L	TR1	B	0.80	V1
GS40	01D0684-003	03/13/2001	REAL	BARIUM	379.00	UG/L	TR1		0.05	V1
GS40	01D0684-003	03/13/2001	REAL	BERYLLIUM	0.31	UG/L	TR1	B	0.03	UJ1
GS40	01D0684-003	03/13/2001	REAL	CADMIUM	0.87	UG/L	TR1	B	0.08	V1
GS40	01D0684-003	03/13/2001	REAL	CALCIUM	119000.00	UG/L	TR1		62.50	V1
GS40	01D0684-003	03/13/2001	REAL	CHROMIUM	5.00	UG/L	TR1		0.18	J1
GS40	01D0684-003	03/13/2001	REAL	COBALT	1.60	UG/L	TR1	B	0.18	V1
GS40	01D0684-003	03/13/2001	REAL	COPPER	8.80	UG/L	TR1		0.15	V1
GS40	01D0684-003	03/13/2001	REAL	IRON	4210.00	UG/L	TR1		4.40	V1 *
GS40	01D0684-003	03/13/2001	REAL	LEAD	4.50	UG/L	TR1		0.55	V1-
GS40	01D0684-003	03/13/2001	REAL	LITHIUM	39.50	UG/L	TR1	B	0.05	J1
GS40	01D0684-003	03/13/2001	REAL	MAGNESIUM	20400.00	UG/L	TR1		1.50	V1
GS40	01D0684-003	03/13/2001	REAL	MANGANESE	680.00	UG/L	TR1		0.05	V1
GS40	01D0684-003	03/13/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	01D0684-003	03/13/2001	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.25	V1
GS40	01D0684-003	03/13/2001	REAL	NICKEL	4.30	UG/L	TR1	B	0.28	V1
GS40	01D0684-003	03/13/2001	REAL	POTASSIUM	22500.00	UG/L	TR1		5.20	J1
GS40	01D0684-003	03/13/2001	REAL	SELENIUM	0.78	UG/L	TR1	U	0.78	V1
GS40	01D0684-003	03/13/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS40	01D0684-003	03/13/2001	REAL	SODIUM	687000.00	UG/L	TR1		62.50	V1
GS40	01D0684-003	03/13/2001	REAL	STRONTIUM	769.00	UG/L	TR1		0.03	V1
GS40	01D0684-003	03/13/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	V1
GS40	01D0684-003	03/13/2001	REAL	TIN	0.58	UG/L	TR1	U	0.58	V1
GS40	01D0684-003	03/13/2001	REAL	VANADIUM	8.10	UG/L	TR1	B	0.15	V1
GS40	01D0684-003	03/13/2001	REAL	ZINC	328.00	UG/L	TR1		0.12	J1
GS40	01D0737-005	04/06/2001	REAL	ALUMINUM	4580.00	UG/L	TR1		3.20	V1
GS40	01D0737-005	04/06/2001	REAL	ANTIMONY	14.50	UG/L	TR1		0.48	V1
GS40	01D0737-005	04/06/2001	REAL	ARSENIC	3.80	UG/L	TR1	B	0.58	J1
GS40	01D0737-005	04/06/2001	REAL	BARIUM	164.00	UG/L	TR1		0.05	V1
GS40	01D0737-005	04/06/2001	REAL	BERYLLIUM	0.26	UG/L	TR1	B	0.05	UJ1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0737-005	04/06/2001	REAL	CADMIUM	0.81	UG/L	TR1	B	0.08	V1
GS40	01D0737-005	04/06/2001	REAL	CALCIUM	43500.00	UG/L	TR1		2.00	V1
GS40	01D0737-005	04/06/2001	REAL	CHROMIUM	6.20	UG/L	TR1		0.22	V1
GS40	01D0737-005	04/06/2001	REAL	COBALT	1.50	UG/L	TR1	B	0.20	V1
GS40	01D0737-005	04/06/2001	REAL	COPPER	11.50	UG/L	TR1		0.18	V1
GS40	01D0737-005	04/06/2001	REAL	IRON	5800.00	UG/L	TR1		3.90	V1
GS40	01D0737-005	04/06/2001	REAL	LEAD	8.30	UG/L	TR1		0.65	J1
GS40	01D0737-005	04/06/2001	REAL	LITHIUM	12.70	UG/L	TR1	B	0.05	J1
GS40	01D0737-005	04/06/2001	REAL	MAGNESIUM	9150.00	UG/L	TR1		2.20	V1
GS40	01D0737-005	04/06/2001	REAL	MANGANESE	461.00	UG/L	TR1		0.02	V1
GS40	01D0737-005	04/06/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	01D0737-005	04/06/2001	REAL	MOLYBDENUM	1.00	UG/L	TR1	B	0.25	V1
GS40	01D0737-005	04/06/2001	REAL	NICKEL	4.60	UG/L	TR1	B	0.30	V1
GS40	01D0737-005	04/06/2001	REAL	POTASSIUM	9550.00	UG/L	TR1	B	542.00	V1
GS40	01D0737-005	04/06/2001	REAL	SELENIUM	1.70	UG/L	TR1		0.65	UJ1
GS40	01D0737-005	04/06/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS40	01D0737-005	04/06/2001	REAL	SODIUM	194000.00	UG/L	TR1		24.20	V1
GS40	01D0737-005	04/06/2001	REAL	STRONTIUM	308.00	UG/L	TR1		0.02	V1
GS40	01D0737-005	04/06/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS40	01D0737-005	04/06/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS40	01D0737-005	04/06/2001	REAL	VANADIUM	10.60	UG/L	TR1	B	0.18	V1
GS40	01D0737-005	04/06/2001	REAL	ZINC	374.00	UG/L	TR1		0.08	V1
GS40	01D0776-009	04/23/2001	REAL	ALUMINUM	3580.00	UG/L	TR1		3.20	V
GS40	01D0776-009	04/23/2001	REAL	ANTIMONY	28.10	UG/L	TR1		0.48	V
GS40	01D0776-009	04/23/2001	REAL	ARSENIC	2.80	UG/L	TR1	B	0.58	V
GS40	01D0776-009	04/23/2001	REAL	BARIUM	216.00	UG/L	TR1		0.05	V
GS40	01D0776-009	04/23/2001	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.05	V
GS40	01D0776-009	04/23/2001	REAL	CADMIUM	1.20	UG/L	TR1		0.08	V
GS40	01D0776-009	04/23/2001	REAL	CALCIUM	59600.00	UG/L	TR1		2.00	V
GS40	01D0776-009	04/23/2001	REAL	CHROMIUM	5.50	UG/L	TR1		0.22	V
GS40	01D0776-009	04/23/2001	REAL	COBALT	1.70	UG/L	TR1	B	0.20	V
GS40	01D0776-009	04/23/2001	REAL	COPPER	12.70	UG/L	TR1		0.18	V
GS40	01D0776-009	04/23/2001	REAL	IRON	4880.00	UG/L	TR1		3.90	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0776-009	04/23/2001	REAL	LEAD	6.30	UG/L	TR1		0.65	V
GS40	01D0776-009	04/23/2001	REAL	LITHIUM	14.00	UG/L	TR1	BEN	0.05	J
GS40	01D0776-009	04/23/2001	REAL	MAGNESIUM	12400.00	UG/L	TR1		2.20	V
GS40	01D0776-009	04/23/2001	REAL	MANGANESE	1010.00	UG/L	TR1		0.02	V
GS40	01D0776-009	04/23/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS40	01D0776-009	04/23/2001	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.25	V
GS40	01D0776-009	04/23/2001	REAL	NICKEL	4.40	UG/L	TR1	B	0.30	V
GS40	01D0776-009	04/23/2001	REAL	POTASSIUM	11100.00	UG/L	TR1	E	8.80	J
GS40	01D0776-009	04/23/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	J
GS40	01D0776-009	04/23/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V
GS40	01D0776-009	04/23/2001	REAL	SODIUM	216000.00	UG/L	TR1		24.20	V
GS40	01D0776-009	04/23/2001	REAL	STRONTIUM	436.00	UG/L	TR1		0.02	V
GS40	01D0776-009	04/23/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V
GS40	01D0776-009	04/23/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V
GS40	01D0776-009	04/23/2001	REAL	VANADIUM	8.70	UG/L	TR1	B	0.18	V
GS40	01D0776-009	04/23/2001	REAL	ZINC	361.00	UG/L	TR1		0.08	V
GS40	01D0790-007	05/04/2001	REAL	ALUMINUM	1820.00	UG/L	TR1		3.20	V1
GS40	01D0790-007	05/04/2001	REAL	ANTIMONY	14.00	UG/L	TR1		0.48	V1
GS40	01D0790-007	05/04/2001	REAL	ARSENIC	1.30	UG/L	TR1	B	0.58	V1
GS40	01D0790-007	05/04/2001	REAL	BARIUM	36.50	UG/L	TR1	B	0.05	V1
GS40	01D0790-007	05/04/2001	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.05	V1
GS40	01D0790-007	05/04/2001	REAL	CADMIUM	0.23	UG/L	TR1	B	0.08	V1
GS40	01D0790-007	05/04/2001	REAL	CALCIUM	9940.00	UG/L	TR1		2.00	V1
GS40	01D0790-007	05/04/2001	REAL	CHROMIUM	2.90	UG/L	TR1		0.22	V1
GS40	01D0790-007	05/04/2001	REAL	COBALT	0.34	UG/L	TR1	B	0.20	V1
GS40	01D0790-007	05/04/2001	REAL	COPPER	5.40	UG/L	TR1		0.18	V1
GS40	01D0790-007	05/04/2001	REAL	IRON	1490.00	UG/L	TR1		3.90	V1
GS40	01D0790-007	05/04/2001	REAL	LEAD	1.90	UG/L	TR1	B	0.65	V1
GS40	01D0790-007	05/04/2001	REAL	LITHIUM	2.20	UG/L	TR1	B	0.05	J1
GS40	01D0790-007	05/04/2001	REAL	MAGNESIUM	1890.00	UG/L	TR1	B	2.20	V1
GS40	01D0790-007	05/04/2001	REAL	MANGANESE	47.90	UG/L	TR1		0.02	V1
GS40	01D0790-007	05/04/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	01D0790-007	05/04/2001	REAL	MOLYBDENUM	0.41	UG/L	TR1	B	0.25	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0790-007	05/04/2001	REAL	NICKEL	1.90	UG/L	TR1	B	0.30	V1
GS40	01D0790-007	05/04/2001	REAL	POTASSIUM	2050.00	UG/L	TR1	B	8.80	J1
GS40	01D0790-007	05/04/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	V1
GS40	01D0790-007	05/04/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS40	01D0790-007	05/04/2001	REAL	SODIUM	17700.00	UG/L	TR1		4.80	J1
GS40	01D0790-007	05/04/2001	REAL	STRONTIUM	61.50	UG/L	TR1	B	0.02	V1
GS40	01D0790-007	05/04/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS40	01D0790-007	05/04/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS40	01D0790-007	05/04/2001	REAL	TOTAL SUSPENDED SOLIDS	21.0	MG/L	TR1		5.0	V1
GS40	01D0790-007	05/04/2001	REAL	VANADIUM	4.20	UG/L	TR1	B	0.18	V1
GS40	01D0790-007	05/04/2001	REAL	ZINC	130.00	UG/L	TR1		0.08	V1
GS40	01D0887-002	05/05/2001	REAL	ALUMINUM	3150.00	UG/L	TR1		3.20	V1
GS40	01D0887-002	05/05/2001	REAL	ANTIMONY	12.10	UG/L	TR1		0.48	V1
GS40	01D0887-002	05/05/2001	REAL	ARSENIC	2.00	UG/L	TR1	B	0.58	V1
GS40	01D0887-002	05/05/2001	REAL	BARIUM	250.00	UG/L	TR1		0.05	V1
GS40	01D0887-002	05/05/2001	REAL	BERYLLIUM	0.13	UG/L	TR1	B	0.05	J1
GS40	01D0887-002	05/05/2001	REAL	CADMIUM	0.79	UG/L	TR1	B	0.08	V1
GS40	01D0887-002	05/05/2001	REAL	CALCIUM	81200.00	UG/L	TR1		2.00	V1
GS40	01D0887-002	05/05/2001	REAL	CHROMIUM	4.40	UG/L	TR1		0.22	V1
GS40	01D0887-002	05/05/2001	REAL	COBALT	1.40	UG/L	TR1	B	0.20	V1
GS40	01D0887-002	05/05/2001	REAL	COPPER	11.90	UG/L	TR1		0.18	V1
GS40	01D0887-002	05/05/2001	REAL	IRON	4430.00	UG/L	TR1		3.90	V1
GS40	01D0887-002	05/05/2001	REAL	LEAD	5.50	UG/L	TR1		0.65	V1
GS40	01D0887-002	05/05/2001	REAL	LITHIUM	10.70	UG/L	TR1	B	0.05	V1
GS40	01D0887-002	05/05/2001	REAL	MAGNESIUM	20400.00	UG/L	TR1		2.20	V1
GS40	01D0887-002	05/05/2001	REAL	MANGANESE	406.00	UG/L	TR1		0.02	V1
GS40	01D0887-002	05/05/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	01D0887-002	05/05/2001	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.25	V1
GS40	01D0887-002	05/05/2001	REAL	NICKEL	3.50	UG/L	TR1	B	0.30	V1
GS40	01D0887-002	05/05/2001	REAL	POTASSIUM	9780.00	UG/L	TR1		8.80	J1
GS40	01D0887-002	05/05/2001	REAL	SELENIUM	1.20	UG/L	TR1	B	0.65	UJ1
GS40	01D0887-002	05/05/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS40	01D0887-002	05/05/2001	REAL	SODIUM	148000.00	UG/L	TR1		24.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D0887-002	05/05/2001	REAL	STRONTIUM	671.00	UG/L	TR1		0.02	V1
GS40	01D0887-002	05/05/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS40	01D0887-002	05/05/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS40	01D0887-002	05/05/2001	REAL	VANADIUM	8.00	UG/L	TR1	B	0.18	V1
GS40	01D0887-002	05/05/2001	REAL	ZINC	330.00	UG/L	TR1		0.08	V1
GS40	01D1011-004	05/24/2001	REAL	ALUMINUM	2780.00	UG/L	TR1		3.20	V1
GS40	01D1011-004	05/24/2001	REAL	ANTIMONY	24.00	UG/L	TR1		0.48	V1
GS40	01D1011-004	05/24/2001	REAL	ARSENIC	5.10	UG/L	TR1		0.58	V1
GS40	01D1011-004	05/24/2001	REAL	BARIUM	397.00	UG/L	TR1		0.05	V1
GS40	01D1011-004	05/24/2001	REAL	BERYLLIUM	0.20	UG/L	TR1	B	0.05	UJ1
GS40	01D1011-004	05/24/2001	REAL	CADMIUM	1.40	UG/L	TR1		0.08	V1
GS40	01D1011-004	05/24/2001	REAL	CALCIUM	147000.00	UG/L	TR1		33.10	V1
GS40	01D1011-004	05/24/2001	REAL	CHROMIUM	5.30	UG/L	TR1		0.22	V1
GS40	01D1011-004	05/24/2001	REAL	COBALT	1.90	UG/L	TR1	B	0.20	V1
GS40	01D1011-004	05/24/2001	REAL	COPPER	12.30	UG/L	TR1		0.18	V1
GS40	01D1011-004	05/24/2001	REAL	IRON	9380.00	UG/L	TR1		3.90	V1
GS40	01D1011-004	05/24/2001	REAL	LEAD	6.00	UG/L	TR1		0.65	V1
GS40	01D1011-004	05/24/2001	REAL	LITHIUM	16.20	UG/L	TR1	B	0.05	J1
GS40	01D1011-004	05/24/2001	REAL	MAGNESIUM	36100.00	UG/L	TR1		2.20	V1
GS40	01D1011-004	05/24/2001	REAL	MANGANESE	1020.00	UG/L	TR1		0.02	V1
GS40	01D1011-004	05/24/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	01D1011-004	05/24/2001	REAL	MOLYBDENUM	1.90	UG/L	TR1	B	0.25	V1
GS40	01D1011-004	05/24/2001	REAL	NICKEL	4.70	UG/L	TR1	B	0.30	V1
GS40	01D1011-004	05/24/2001	REAL	POTASSIUM	12500.00	UG/L	TR1		8.80	J1
GS40	01D1011-004	05/24/2001	REAL	SELENIUM	0.74	UG/L	TR1	B	0.65	UJ1
GS40	01D1011-004	05/24/2001	REAL	SILVER	0.27	UG/L	TR1	B	0.25	V1
GS40	01D1011-004	05/24/2001	REAL	SODIUM	205000.00	UG/L	TR1		24.20	V1
GS40	01D1011-004	05/24/2001	REAL	STRONTIUM	1060.00	UG/L	TR1		0.02	V1
GS40	01D1011-004	05/24/2001	REAL	THALLIUM	1.50	UG/L	TR1	B	0.98	V1
GS40	01D1011-004	05/24/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS40	01D1011-004	05/24/2001	REAL	VANADIUM	9.10	UG/L	TR1	B	0.18	V1
GS40	01D1011-004	05/24/2001	REAL	ZINC	524.00	UG/L	TR1		0.08	V1
GS40	01D1097-001	06/28/2001	REAL	ALUMINUM	9170.00	UG/L	TR1		3.20	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D1097-001	06/28/2001	REAL	ANTIMONY	19.00	UG/L	TR1		0.48	V1
GS40	01D1097-001	06/28/2001	REAL	ARSENIC	5.60	UG/L	TR1		0.58	V1
GS40	01D1097-001	06/28/2001	REAL	BARIUM	266.00	UG/L	TR1		0.05	V1
GS40	01D1097-001	06/28/2001	REAL	BERYLLIUM	0.42	UG/L	TR1	B	0.05	V1
GS40	01D1097-001	06/28/2001	REAL	CADMIUM	1.80	UG/L	TR1		0.08	V1
GS40	01D1097-001	06/28/2001	REAL	CALCIUM	60300.00	UG/L	TR1		2.00	V1
GS40	01D1097-001	06/28/2001	REAL	CHROMIUM	11.10	UG/L	TR1		0.22	V1
GS40	01D1097-001	06/28/2001	REAL	COBALT	3.70	UG/L	TR1	B	0.20	V1
GS40	01D1097-001	06/28/2001	REAL	COPPER	26.30	UG/L	TR1		0.18	V1
GS40	01D1097-001	06/28/2001	REAL	IRON	11500.00	UG/L	TR1		3.90	V1
GS40	01D1097-001	06/28/2001	REAL	LEAD	17.50	UG/L	TR1		0.65	V1
GS40	01D1097-001	06/28/2001	REAL	LITHIUM	13.20	UG/L	TR1	B	0.05	J1
GS40	01D1097-001	06/28/2001	REAL	MAGNESIUM	16000.00	UG/L	TR1		2.20	V1
GS40	01D1097-001	06/28/2001	REAL	MANGANESE	702.00	UG/L	TR1		0.02	V1
GS40	01D1097-001	06/28/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	01D1097-001	06/28/2001	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.25	V1
GS40	01D1097-001	06/28/2001	REAL	NICKEL	8.80	UG/L	TR1	B	0.30	V1
GS40	01D1097-001	06/28/2001	REAL	POTASSIUM	7750.00	UG/L	TR1		8.80	J1
GS40	01D1097-001	06/28/2001	REAL	SELENIUM	0.71	UG/L	TR1	B	0.65	J1
GS40	01D1097-001	06/28/2001	REAL	SILVER	0.87	UG/L	TR1	B	0.25	V1
GS40	01D1097-001	06/28/2001	REAL	SODIUM	86200.00	UG/L	TR1		24.20	V1
GS40	01D1097-001	06/28/2001	REAL	STRONTIUM	450.00	UG/L	TR1		0.02	V1
GS40	01D1097-001	06/28/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS40	01D1097-001	06/28/2001	REAL	TIN	1.50	UG/L	TR1	B	0.88	V1
GS40	01D1097-001	06/28/2001	REAL	VANADIUM	22.20	UG/L	TR1	B	0.18	V1
GS40	01D1097-001	06/28/2001	REAL	ZINC	768.00	UG/L	TR1		0.08	V1
GS40	01D1237-007	07/16/2001	REAL	ALUMINUM	6130.00	UG/L	TR1		4.00	V1
GS40	01D1237-007	07/16/2001	REAL	ANTIMONY	21.50	UG/L	TR1		0.58	V1
GS40	01D1237-007	07/16/2001	REAL	ARSENIC	6.40	UG/L	TR1		0.98	V1
GS40	01D1237-007	07/16/2001	REAL	BARIUM	326.00	UG/L	TR1		0.02	V1
GS40	01D1237-007	07/16/2001	REAL	BERYLLIUM	0.29	UG/L	TR1	B	0.05	J1
GS40	01D1237-007	07/16/2001	REAL	CADMIUM	1.90	UG/L	TR1		0.08	V1
GS40	01D1237-007	07/16/2001	REAL	CALCIUM	101000.00	UG/L	TR1		2.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	01D1237-007	07/16/2001	REAL	CHROMIUM	8.20	UG/L	TR1		0.35	V1
GS40	01D1237-007	07/16/2001	REAL	COBALT	2.60	UG/L	TR1	B	0.22	V1
GS40	01D1237-007	07/16/2001	REAL	COPPER	20.80	UG/L	TR1		0.12	V1
GS40	01D1237-007	07/16/2001	REAL	IRON	12800.00	UG/L	TR1		3.90	V1
GS40	01D1237-007	07/16/2001	REAL	LEAD	11.40	UG/L	TR1		0.60	V1
GS40	01D1237-007	07/16/2001	REAL	LITHIUM	18.50	UG/L	TR1	B	0.02	J1
GS40	01D1237-007	07/16/2001	REAL	MAGNESIUM	30100.00	UG/L	TR1		2.00	V1
GS40	01D1237-007	07/16/2001	REAL	MANGANESE	595.00	UG/L	TR1		0.02	V1
GS40	01D1237-007	07/16/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	01D1237-007	07/16/2001	REAL	MOLYBDENUM	1.90	UG/L	TR1	B	0.25	V1
GS40	01D1237-007	07/16/2001	REAL	NICKEL	6.60	UG/L	TR1	B	0.42	V1
GS40	01D1237-007	07/16/2001	REAL	POTASSIUM	7620.00	UG/L	TR1	B	53.50	V1
GS40	01D1237-007	07/16/2001	REAL	SELENIUM	1.40	UG/L	TR1	B	0.80	V1
GS40	01D1237-007	07/16/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS40	01D1237-007	07/16/2001	REAL	SODIUM	145000.00	UG/L	TR1		8.00	V1
GS40	01D1237-007	07/16/2001	REAL	STRONTIUM	859.00	UG/L	TR1		0.02	V1
GS40	01D1237-007	07/16/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS40	01D1237-007	07/16/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1
GS40	01D1237-007	07/16/2001	REAL	VANADIUM	17.30	UG/L	TR1	B	0.12	V1
GS40	01D1237-007	07/16/2001	REAL	ZINC	604.00	UG/L	TR1		0.10	V1
GS40	01D1387-002	08/09/2001	REAL	ALUMINUM	5550.00	UG/L	TR1		4.00	V1
GS40	01D1387-002	08/09/2001	REAL	ANTIMONY	14.30	UG/L	TR1		0.58	V1
GS40	01D1387-002	08/09/2001	REAL	ARSENIC	9.10	UG/L	TR1		0.98	V1
GS40	01D1387-002	08/09/2001	REAL	BARIUM	335.00	UG/L	TR1		0.02	V1
GS40	01D1387-002	08/09/2001	REAL	BERYLLIUM	0.33	UG/L	TR1	B	0.05	V1
GS40	01D1387-002	08/09/2001	REAL	CADMIUM	1.50	UG/L	TR1		0.08	V1
GS40	01D1387-002	08/09/2001	REAL	CALCIUM	90000.00	UG/L	TR1		2.00	V1
GS40	01D1387-002	08/09/2001	REAL	CHROMIUM	7.00	UG/L	TR1		0.35	V1
GS40	01D1387-002	08/09/2001	REAL	COBALT	2.80	UG/L	TR1	B	0.22	V1
GS40	01D1387-002	08/09/2001	REAL	COPPER	16.50	UG/L	TR1		0.10	V1
GS40	01D1387-002	08/09/2001	REAL	IRON	20100.00	UG/L	TR1		3.90	V1
GS40	01D1387-002	08/09/2001	REAL	LEAD	10.70	UG/L	TR1		0.60	V1
GS40	01D1387-002	08/09/2001	REAL	LITHIUM	15.30	UG/L	TR1	B	0.02	V1

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GS40	01D1387-002	08/09/2001	REAL	MAGNESIUM	22900.00	UG/L	TR1		2.00	V1
GS40	01D1387-002	08/09/2001	REAL	MANGANESE	850.00	UG/L	TR1		0.02	V1
GS40	01D1387-002	08/09/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	01D1387-002	08/09/2001	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.25	V1
GS40	01D1387-002	08/09/2001	REAL	NICKEL	6.00	UG/L	TR1	B	0.42	V1
GS40	01D1387-002	08/09/2001	REAL	POTASSIUM	8110.00	UG/L	TR1		2.70	V1
GS40	01D1387-002	08/09/2001	REAL	SELENIUM	0.80	UG/L	TR1	U	0.80	V1
GS40	01D1387-002	08/09/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS40	01D1387-002	08/09/2001	REAL	SODIUM	139000.00	UG/L	TR1		181.00	V1
GS40	01D1387-002	08/09/2001	REAL	STRONTIUM	704.00	UG/L	TR1		0.02	V1
GS40	01D1387-002	08/09/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS40	01D1387-002	08/09/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1
GS40	01D1387-002	08/09/2001	REAL	VANADIUM	18.40	UG/L	TR1	B	0.12	V1
GS40	01D1387-002	08/09/2001	REAL	ZINC	622.00	UG/L	TR1		0.10	V1
GS40	02D0002-003	09/08/2001	REAL	ALUMINUM	120.00	UG/L	TR1		4.00	V1
GS40	02D0002-003	09/08/2001	REAL	ANTIMONY	1.90	UG/L	TR1	B	0.58	V1
GS40	02D0002-003	09/08/2001	REAL	ARSENIC	1.90	UG/L	TR1	B	0.98	V1
GS40	02D0002-003	09/08/2001	REAL	BARIUM	159.00	UG/L	TR1		0.02	V1
GS40	02D0002-003	09/08/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	V1
GS40	02D0002-003	09/08/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS40	02D0002-003	09/08/2001	REAL	CALCIUM	90300.00	UG/L	TR1		2.00	V1
GS40	02D0002-003	09/08/2001	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.35	V1
GS40	02D0002-003	09/08/2001	REAL	COBALT	0.22	UG/L	TR1	U	0.22	V1
GS40	02D0002-003	09/08/2001	REAL	COPPER	4.70	UG/L	TR1		0.12	UJ1
GS40	02D0002-003	09/08/2001	REAL	IRON	433.00	UG/L	TR1		3.90	V1
GS40	02D0002-003	09/08/2001	REAL	LEAD	0.98	UG/L	TR1	B	0.60	UJ1
GS40	02D0002-003	09/08/2001	REAL	LITHIUM	14.30	UG/L	TR1	B	0.02	V1
GS40	02D0002-003	09/08/2001	REAL	MAGNESIUM	23400.00	UG/L	TR1		2.00	V1
GS40	02D0002-003	09/08/2001	REAL	MANGANESE	39.20	UG/L	TR1		0.02	V1
GS40	02D0002-003	09/08/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	02D0002-003	09/08/2001	REAL	MOLYBDENUM	2.20	UG/L	TR1	B	4.00	V1
GS40	02D0002-003	09/08/2001	REAL	NICKEL	1.40	UG/L	TR1	B	0.42	V1
GS40	02D0002-003	09/08/2001	REAL	POTASSIUM	5820.00	UG/L	TR1		2.70	V1

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GS40	02D0002-003	09/08/2001	REAL	SELENIUM	1.60	UG/L	TR1	B	0.80	V1
GS40	02D0002-003	09/08/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	UJ1
GS40	02D0002-003	09/08/2001	REAL	SODIUM	84800.00	UG/L	TR1		2.40	J1
GS40	02D0002-003	09/08/2001	REAL	STRONTIUM	670.00	UG/L	TR1		0.58	V1
GS40	02D0002-003	09/08/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS40	02D0002-003	09/08/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1
GS40	02D0002-003	09/08/2001	REAL	VANADIUM	1.80	UG/L	TR1	B	0.12	V1
GS40	02D0002-003	09/08/2001	REAL	ZINC	29.40	UG/L	TR1		0.10	V1
GS41	01D0737-010	04/23/2001	REAL	TOTAL SUSPENDED SOLIDS	26.0	MG/L	TR1		5.0	V
GS41	01D0790-008	05/04/2001	REAL	TOTAL SUSPENDED SOLIDS	37.0	MG/L	TR1		5.0	V1
GS43	01D0692-004	10/16/2000	REAL	ALUMINUM	304.00	UG/L	TR1		3.20	J1
GS43	01D0692-004	10/16/2000	REAL	ANTIMONY	0.91	UG/L	TR1	B	0.48	J1
GS43	01D0692-004	10/16/2000	REAL	ARSENIC	0.58	UG/L	TR1	U	0.58	UJ1
GS43	01D0692-004	10/16/2000	REAL	BARIUM	86.20	UG/L	TR1	B	0.05	J1
GS43	01D0692-004	10/16/2000	REAL	BERYLLIUM	0.13	UG/L	TR1	B	0.05	J1
GS43	01D0692-004	10/16/2000	REAL	CADMIUM	0.12	UG/L	TR1	B	0.08	J1
GS43	01D0692-004	10/16/2000	REAL	CALCIUM	40300.00	UG/L	TR1		2.00	J1
GS43	01D0692-004	10/16/2000	REAL	CHROMIUM	1.20	UG/L	TR1	B	0.22	J1
GS43	01D0692-004	10/16/2000	REAL	COBALT	0.20	UG/L	TR1	U	0.20	UJ1
GS43	01D0692-004	10/16/2000	REAL	COPPER	2.70	UG/L	TR1	B	0.18	J1
GS43	01D0692-004	10/16/2000	REAL	IRON	211.00	UG/L	TR1		3.92	J1
GS43	01D0692-004	10/16/2000	REAL	LEAD	0.65	UG/L	TR1	U	0.65	UJ1
GS43	01D0692-004	10/16/2000	REAL	LITHIUM	10.60	UG/L	TR1	B	0.05	J1
GS43	01D0692-004	10/16/2000	REAL	MAGNESIUM	16000.00	UG/L	TR1		2.20	J1
GS43	01D0692-004	10/16/2000	REAL	MANGANESE	4.30	UG/L	TR1	B	0.02	J1
GS43	01D0692-004	10/16/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1
GS43	01D0692-004	10/16/2000	REAL	MOLYBDENUM	3.30	UG/L	TR1	B	0.25	J1
GS43	01D0692-004	10/16/2000	REAL	NICKEL	2.00	UG/L	TR1	B	0.30	J1
GS43	01D0692-004	10/16/2000	REAL	POTASSIUM	4410.00	UG/L	TR1	B	8.82	J1
GS43	01D0692-004	10/16/2000	REAL	SELENIUM	1.50	UG/L	TR1	B	0.65	UJ1
GS43	01D0692-004	10/16/2000	REAL	SILVER	0.25	UG/L	TR1	U	0.25	UJ1
GS43	01D0692-004	10/16/2000	REAL	SODIUM	40400.00	UG/L	TR1		2.60	J1
GS43	01D0692-004	10/16/2000	REAL	STRONTIUM	421.00	UG/L	TR1		0.02	J1

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GS43	01D0692-004	10/16/2000	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	UJ1
GS43	01D0692-004	10/16/2000	REAL	TIN	0.88	UG/L	TR1	U	0.88	UJ1
GS43	01D0692-004	10/16/2000	REAL	VANADIUM	2.20	UG/L	TR1	B	2.20	J1
GS43	01D0692-004	10/16/2000	REAL	ZINC	158.00	UG/L	TR1		0.08	J1
GS43	01D0790-009	04/16/2001	REAL	ALUMINUM	497.00	UG/L	TR1		3.20	V1
GS43	01D0790-009	04/16/2001	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V1
GS43	01D0790-009	04/16/2001	REAL	ARSENIC	0.88	UG/L	TR1	B	0.58	V1
GS43	01D0790-009	04/16/2001	REAL	BARIUM	83.80	UG/L	TR1	B	0.05	V1
GS43	01D0790-009	04/16/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	V1
GS43	01D0790-009	04/16/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS43	01D0790-009	04/16/2001	REAL	CALCIUM	40900.00	UG/L	TR1		2.00	V1
GS43	01D0790-009	04/16/2001	REAL	CHROMIUM	1.20	UG/L	TR1	B	0.22	V1
GS43	01D0790-009	04/16/2001	REAL	COBALT	0.20	UG/L	TR1	U	0.20	V1
GS43	01D0790-009	04/16/2001	REAL	COPPER	3.20	UG/L	TR1		0.18	V1
GS43	01D0790-009	04/16/2001	REAL	IRON	338.00	UG/L	TR1		3.90	V1
GS43	01D0790-009	04/16/2001	REAL	LEAD	0.65	UG/L	TR1	U	0.65	V1
GS43	01D0790-009	04/16/2001	REAL	LITHIUM	7.10	UG/L	TR1	B	0.05	J1
GS43	01D0790-009	04/16/2001	REAL	MAGNESIUM	13400.00	UG/L	TR1		2.20	V1
GS43	01D0790-009	04/16/2001	REAL	MANGANESE	4.30	UG/L	TR1	B	0.02	J1
GS43	01D0790-009	04/16/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS43	01D0790-009	04/16/2001	REAL	MOLYBDENUM	2.00	UG/L	TR1	B	0.25	V1
GS43	01D0790-009	04/16/2001	REAL	NICKEL	1.30	UG/L	TR1	B	0.30	V1
GS43	01D0790-009	04/16/2001	REAL	POTASSIUM	3960.00	UG/L	TR1	B	8.80	J1
GS43	01D0790-009	04/16/2001	REAL	SELENIUM	1.60	UG/L	TR1	B	0.65	V1
GS43	01D0790-009	04/16/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS43	01D0790-009	04/16/2001	REAL	SODIUM	39700.00	UG/L	TR1		24.20	J1
GS43	01D0790-009	04/16/2001	REAL	STRONTIUM	384.00	UG/L	TR1		0.02	V1
GS43	01D0790-009	04/16/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS43	01D0790-009	04/16/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS43	01D0790-009	04/16/2001	REAL	VANADIUM	2.40	UG/L	TR1	B	0.18	V1
GS43	01D0790-009	04/16/2001	REAL	ZINC	151.00	UG/L	TR1		0.08	V1
GS43	01D0800-001	05/05/2001	REAL	ALUMINUM	395.00	UG/L	TR1		3.20	V
GS43	01D0800-001	05/05/2001	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS43	01D0800-001	05/05/2001	REAL	ARSENIC	0.65	UG/L	TR1	B	0.58	V
GS43	01D0800-001	05/05/2001	REAL	BARIUM	81.10	UG/L	TR1	B	0.05	V
GS43	01D0800-001	05/05/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	V
GS43	01D0800-001	05/05/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V
GS43	01D0800-001	05/05/2001	REAL	CALCIUM	39600.00	UG/L	TR1		2.00	V
GS43	01D0800-001	05/05/2001	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.22	V
GS43	01D0800-001	05/05/2001	REAL	COBALT	0.20	UG/L	TR1	U	0.20	V
GS43	01D0800-001	05/05/2001	REAL	COPPER	3.50	UG/L	TR1		0.18	V
GS43	01D0800-001	05/05/2001	REAL	IRON	268.00	UG/L	TR1		3.90	V
GS43	01D0800-001	05/05/2001	REAL	LEAD	0.65	UG/L	TR1	U	0.65	J
GS43	01D0800-001	05/05/2001	REAL	LITHIUM	6.70	UG/L	TR1	B	0.05	J
GS43	01D0800-001	05/05/2001	REAL	MAGNESIUM	12800.00	UG/L	TR1		2.20	V
GS43	01D0800-001	05/05/2001	REAL	MANGANESE	3.50	UG/L	TR1	B	0.18	V
GS43	01D0800-001	05/05/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS43	01D0800-001	05/05/2001	REAL	MOLYBDENUM	2.40	UG/L	TR1	B	0.25	V
GS43	01D0800-001	05/05/2001	REAL	NICKEL	1.30	UG/L	TR1	B	0.30	V
GS43	01D0800-001	05/05/2001	REAL	POTASSIUM	3850.00	UG/L	TR1	B	8.80	J
GS43	01D0800-001	05/05/2001	REAL	SELENIUM	1.20	UG/L	TR1	B	0.65	J
GS43	01D0800-001	05/05/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V
GS43	01D0800-001	05/05/2001	REAL	SODIUM	31800.00	UG/L	TR1		24.20	V
GS43	01D0800-001	05/05/2001	REAL	STRONTIUM	375.00	UG/L	TR1		0.02	V
GS43	01D0800-001	05/05/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V
GS43	01D0800-001	05/05/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V
GS43	01D0800-001	05/05/2001	REAL	VANADIUM	2.20	UG/L	TR1	B	0.18	V
GS43	01D0800-001	05/05/2001	REAL	ZINC	116.00	UG/L	TR1		0.08	V
GS43	01D0861-002	05/07/2001	REAL	ALUMINUM	168.00	UG/L	TR1		3.20	V1
GS43	01D0861-002	05/07/2001	REAL	ANTIMONY	0.51	UG/L	TR1	B	0.48	V1
GS43	01D0861-002	05/07/2001	REAL	ARSENIC	0.58	UG/L	TR1	U	0.58	V1
GS43	01D0861-002	05/07/2001	REAL	BARIUM	137.00	UG/L	TR1		0.05	V1
GS43	01D0861-002	05/07/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	J1
GS43	01D0861-002	05/07/2001	REAL	CADMIUM	0.09	UG/L	TR1	B	0.08	V1
GS43	01D0861-002	05/07/2001	REAL	CALCIUM	60000.00	UG/L	TR1		2.00	V1
GS43	01D0861-002	05/07/2001	REAL	CHROMIUM	0.48	UG/L	TR1	B	0.22	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS43	01D0861-002	05/07/2001	REAL	COBALT	0.24	UG/L	TR1	B	0.20	V1
GS43	01D0861-002	05/07/2001	REAL	COPPER	2.60	UG/L	TR1	B	0.18	UJ1
GS43	01D0861-002	05/07/2001	REAL	IRON	55.20	UG/L	TR1	B	3.90	V1
GS43	01D0861-002	05/07/2001	REAL	LEAD	0.65	UG/L	TR1	U	0.65	V1
GS43	01D0861-002	05/07/2001	REAL	LITHIUM	13.40	UG/L	TR1	B	0.05	V1
GS43	01D0861-002	05/07/2001	REAL	MAGNESIUM	25100.00	UG/L	TR1		2.20	V1
GS43	01D0861-002	05/07/2001	REAL	MANGANESE	3.20	UG/L	TR1	B	0.02	V1
GS43	01D0861-002	05/07/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS43	01D0861-002	05/07/2001	REAL	MOLYBDENUM	4.40	UG/L	TR1	B	0.25	V1
GS43	01D0861-002	05/07/2001	REAL	NICKEL	0.83	UG/L	TR1	B	0.30	V1
GS43	01D0861-002	05/07/2001	REAL	POTASSIUM	5890.00	UG/L	TR1		8.80	J1
GS43	01D0861-002	05/07/2001	REAL	SELENIUM	4.40	UG/L	TR1		0.65	J1
GS43	01D0861-002	05/07/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS43	01D0861-002	05/07/2001	REAL	SODIUM	59100.00	UG/L	TR1		24.20	V1
GS43	01D0861-002	05/07/2001	REAL	STRONTIUM	718.00	UG/L	TR1		0.02	V1
GS43	01D0861-002	05/07/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS43	01D0861-002	05/07/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS43	01D0861-002	05/07/2001	REAL	VANADIUM	2.20	UG/L	TR1	B	0.18	V1
GS43	01D0861-002	05/07/2001	REAL	ZINC	150.00	UG/L	TR1		0.08	V1
GS43	01D1083-006	05/21/2001	REAL	ALUMINUM	2060.00	UG/L	TR1		3.20	V1
GS43	01D1083-006	05/21/2001	REAL	ANTIMONY	0.61	UG/L	TR1	B	0.48	V1
GS43	01D1083-006	05/21/2001	REAL	ARSENIC	1.10	UG/L	TR1	B	0.58	V1
GS43	01D1083-006	05/21/2001	REAL	BARIUM	61.50	UG/L	TR1	B	0.05	V1
GS43	01D1083-006	05/21/2001	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.05	UJ1
GS43	01D1083-006	05/21/2001	REAL	CADMIUM	0.19	UG/L	TR1	B	0.08	V1
GS43	01D1083-006	05/21/2001	REAL	CALCIUM	26000.00	UG/L	TR1		2.00	V1
GS43	01D1083-006	05/21/2001	REAL	CHROMIUM	4.70	UG/L	TR1		0.22	V1
GS43	01D1083-006	05/21/2001	REAL	COBALT	0.61	UG/L	TR1	B	0.20	V1
GS43	01D1083-006	05/21/2001	REAL	COPPER	4.90	UG/L	TR1		0.18	V1
GS43	01D1083-006	05/21/2001	REAL	IRON	1660.00	UG/L	TR1		3.90	V1
GS43	01D1083-006	05/21/2001	REAL	LEAD	3.50	UG/L	TR1		0.65	UJ1
GS43	01D1083-006	05/21/2001	REAL	LITHIUM	6.50	UG/L	TR1	B	0.05	J1
GS43	01D1083-006	05/21/2001	REAL	MAGNESIUM	7710.00	UG/L	TR1		2.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS43	01D1083-006	05/21/2001	REAL	MANGANESE	30.50	UG/L	TR1		0.02	V1
GS43	01D1083-006	05/21/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS43	01D1083-006	05/21/2001	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.25	V1
GS43	01D1083-006	05/21/2001	REAL	NICKEL	2.60	UG/L	TR1	B	0.30	V1
GS43	01D1083-006	05/21/2001	REAL	POTASSIUM	4890.00	UG/L	TR1	B	8.80	J1
GS43	01D1083-006	05/21/2001	REAL	SELENIUM	0.88	UG/L	TR1	B	0.65	V1
GS43	01D1083-006	05/21/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS43	01D1083-006	05/21/2001	REAL	SODIUM	16000.00	UG/L	TR1		0.42	V1
GS43	01D1083-006	05/21/2001	REAL	STRONTIUM	214.00	UG/L	TR1		0.02	V1
GS43	01D1083-006	05/21/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS43	01D1083-006	05/21/2001	REAL	TIN	0.92	UG/L	TR1	B	0.88	V1
GS43	01D1083-006	05/21/2001	REAL	VANADIUM	5.90	UG/L	TR1	B	0.18	V1
GS43	01D1083-006	05/21/2001	REAL	ZINC	74.40	UG/L	TR1		0.08	V1
GS44	01D0199-002	10/04/2000	REAL	ALUMINUM	1480.00	UG/L	TR1		2.60	V1
GS44	01D0199-002	10/04/2000	REAL	ANTIMONY	1.10	UG/L	TR1	B	0.52	UJ1
GS44	01D0199-002	10/04/2000	REAL	ARSENIC	0.99	UG/L	TR1	B	0.85	V1
GS44	01D0199-002	10/04/2000	REAL	BARIUM	95.10	UG/L	TR1	B	0.05	V1
GS44	01D0199-002	10/04/2000	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.02	V1
GS44	01D0199-002	10/04/2000	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	01D0199-002	10/04/2000	REAL	CALCIUM	53200.00	UG/L	TR1		2.20	V1
GS44	01D0199-002	10/04/2000	REAL	CHROMIUM	2.10	UG/L	TR1		0.22	V1
GS44	01D0199-002	10/04/2000	REAL	COBALT	0.58	UG/L	TR1	B	0.20	UJ1
GS44	01D0199-002	10/04/2000	REAL	COPPER	4.50	UG/L	TR1		0.20	V1
GS44	01D0199-002	10/04/2000	REAL	IRON	1370.00	UG/L	TR1		4.10	V1
GS44	01D0199-002	10/04/2000	REAL	LEAD	2.00	UG/L	TR1	B	0.52	V1
GS44	01D0199-002	10/04/2000	REAL	LITHIUM	49.50	UG/L	TR1	B	0.05	J1
GS44	01D0199-002	10/04/2000	REAL	MAGNESIUM	9410.00	UG/L	TR1		2.00	V1
GS44	01D0199-002	10/04/2000	REAL	MANGANESE	21.20	UG/L	TR1		0.05	V1
GS44	01D0199-002	10/04/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS44	01D0199-002	10/04/2000	REAL	MOLYBDENUM	1.60	UG/L	TR1	B	0.22	V1
GS44	01D0199-002	10/04/2000	REAL	NICKEL	2.30	UG/L	TR1	B	0.30	V1
GS44	01D0199-002	10/04/2000	REAL	POTASSIUM	9850.00	UG/L	TR1		7.50	J1
GS44	01D0199-002	10/04/2000	REAL	SELENIUM	2.20	UG/L	TR1	B	1.10	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D0199-002	10/04/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS44	01D0199-002	10/04/2000	REAL	SODIUM	24300.00	UG/L	TR1		6.80	V1
GS44	01D0199-002	10/04/2000	REAL	STRONTIUM	288.00	UG/L	TR1		0.02	V1
GS44	01D0199-002	10/04/2000	REAL	THALLIUM	0.90	UG/L	TR1	U	0.90	V1
GS44	01D0199-002	10/04/2000	REAL	TIN	0.52	UG/L	TR1	U	0.52	V1
GS44	01D0199-002	10/04/2000	REAL	VANADIUM	4.50	UG/L	TR1	B	0.22	V1
GS44	01D0199-002	10/04/2000	REAL	ZINC	84.70	UG/L	TR1		0.10	V1
GS44	01D0289-001	10/30/2000	REAL	ALUMINUM	149.00	UG/L	TR1		5.70	V1
GS44	01D0289-001	10/30/2000	REAL	ANTIMONY	0.68	UG/L	TR1	B	0.58	V1
GS44	01D0289-001	10/30/2000	REAL	ARSENIC	1.20	UG/L	TR1	B	0.60	V1
GS44	01D0289-001	10/30/2000	REAL	BARIUM	325.00	UG/L	TR1		0.05	V1
GS44	01D0289-001	10/30/2000	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS44	01D0289-001	10/30/2000	REAL	CADMIUM	0.38	UG/L	TR1	B	0.08	UJ1
GS44	01D0289-001	10/30/2000	REAL	CALCIUM	135000.00	UG/L	TR1		19.20	V1
GS44	01D0289-001	10/30/2000	REAL	CHROMIUM	2.60	UG/L	TR1		0.15	UJ1
GS44	01D0289-001	10/30/2000	REAL	COBALT	0.31	UG/L	TR1	B	0.22	V1
GS44	01D0289-001	10/30/2000	REAL	COPPER	4.10	UG/L	TR1		0.22	V1
GS44	01D0289-001	10/30/2000	REAL	IRON	225.00	UG/L	TR1		5.40	V1
GS44	01D0289-001	10/30/2000	REAL	LEAD	0.52	UG/L	TR1	U	0.52	V1
GS44	01D0289-001	10/30/2000	REAL	LITHIUM	106.00	UG/L	TR1		0.05	J1
GS44	01D0289-001	10/30/2000	REAL	MAGNESIUM	17700.00	UG/L	TR1		1.70	J1
GS44	01D0289-001	10/30/2000	REAL	MANGANESE	38.80	UG/L	TR1		0.05	V1
GS44	01D0289-001	10/30/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1
GS44	01D0289-001	10/30/2000	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.25	V1
GS44	01D0289-001	10/30/2000	REAL	NICKEL	1.40	UG/L	TR1	B	0.22	V1
GS44	01D0289-001	10/30/2000	REAL	POTASSIUM	13500.00	UG/L	TR1	B	378.00	V1
GS44	01D0289-001	10/30/2000	REAL	SELENIUM	1.90	UG/L	TR1	B	0.82	J1
GS44	01D0289-001	10/30/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS44	01D0289-001	10/30/2000	REAL	SODIUM	821000.00	UG/L	TR1		57.20	V1
GS44	01D0289-001	10/30/2000	REAL	STRONTIUM	674.00	UG/L	TR1		0.02	V1
GS44	01D0289-001	10/30/2000	REAL	THALLIUM	1.00	UG/L	TR1	U	1.00	V1
GS44	01D0289-001	10/30/2000	REAL	TIN	0.65	UG/L	TR1	U	0.65	V1
GS44	01D0289-001	10/30/2000	REAL	VANADIUM	1.30	UG/L	TR1	B	0.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D0289-001	10/30/2000	REAL	ZINC	384.00	UG/L	TR1		0.10	V1
GS44	01D0548-007	02/23/2001	REAL	ALUMINUM	75.60	UG/L	TR1		3.10	V1
GS44	01D0548-007	02/23/2001	REAL	ANTIMONY	0.70	UG/L	TR1	B	0.42	V1
GS44	01D0548-007	02/23/2001	REAL	ARSENIC	0.88	UG/L	TR1	B	0.80	V1
GS44	01D0548-007	02/23/2001	REAL	BARIUM	373.00	UG/L	TR1		0.05	V1
GS44	01D0548-007	02/23/2001	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.02	J1
GS44	01D0548-007	02/23/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	01D0548-007	02/23/2001	REAL	CALCIUM	224000.00	UG/L	TR1		31.20	V1
GS44	01D0548-007	02/23/2001	REAL	CHROMIUM	1.30	UG/L	TR1	B	0.18	V1
GS44	01D0548-007	02/23/2001	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V1
GS44	01D0548-007	02/23/2001	REAL	COPPER	2.20	UG/L	TR1	B	0.15	UJ1
GS44	01D0548-007	02/23/2001	REAL	IRON	53.70	UG/L	TR1	B	4.40	V1
GS44	01D0548-007	02/23/2001	REAL	LEAD	0.55	UG/L	TR1	U	0.55	V1
GS44	01D0548-007	02/23/2001	REAL	LITHIUM	182.00	UG/L	TR1		0.05	J1
GS44	01D0548-007	02/23/2001	REAL	MAGNESIUM	33300.00	UG/L	TR1		1.50	V1
GS44	01D0548-007	02/23/2001	REAL	MANGANESE	2.10	UG/L	TR1	B	0.05	V1
GS44	01D0548-007	02/23/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS44	01D0548-007	02/23/2001	REAL	MOLYBDENUM	2.00	UG/L	TR1	B	0.25	V1
GS44	01D0548-007	02/23/2001	REAL	NICKEL	4.00	UG/L	TR1	B	0.28	V1
GS44	01D0548-007	02/23/2001	REAL	POTASSIUM	14100.00	UG/L	TR1	B	611.00	V1
GS44	01D0548-007	02/23/2001	REAL	SELENIUM	1.50	UG/L	TR1	B	0.78	V1
GS44	01D0548-007	02/23/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS44	01D0548-007	02/23/2001	REAL	SODIUM	227000.00	UG/L	TR1		31.10	V1
GS44	01D0548-007	02/23/2001	REAL	STRONTIUM	1220.00	UG/L	TR1		0.02	V1
GS44	01D0548-007	02/23/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	J1
GS44	01D0548-007	02/23/2001	REAL	TIN	0.61	UG/L	TR1	B	0.58	UJ1
GS44	01D0548-007	02/23/2001	REAL	VANADIUM	1.20	UG/L	TR1	B	0.15	V1
GS44	01D0548-007	02/23/2001	REAL	ZINC	112.00	UG/L	TR1		0.12	V1
GS44	01D0684-005	03/13/2001	REAL	ALUMINUM	7880.00	UG/L	TR1		3.20	V1
GS44	01D0684-005	03/13/2001	REAL	ANTIMONY	1.00	UG/L	TR1	B	0.48	V1
GS44	01D0684-005	03/13/2001	REAL	ARSENIC	2.70	UG/L	TR1	B	0.58	UJ1
GS44	01D0684-005	03/13/2001	REAL	BARIUM	173.00	UG/L	TR1		0.05	V1
GS44	01D0684-005	03/13/2001	REAL	BERYLLIUM	0.49	UG/L	TR1	B	0.05	UJ1

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GS44	01D0684-005	03/13/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	01D0684-005	03/13/2001	REAL	CALCIUM	75300.00	UG/L	TR1		2.00	V1
GS44	01D0684-005	03/13/2001	REAL	CHROMIUM	7.20	UG/L	TR1		0.22	V1
GS44	01D0684-005	03/13/2001	REAL	COBALT	1.20	UG/L	TR1	B	0.20	V1
GS44	01D0684-005	03/13/2001	REAL	COPPER	11.60	UG/L	TR1		0.18	V1
GS44	01D0684-005	03/13/2001	REAL	IRON	5080.00	UG/L	TR1		3.92	V1
GS44	01D0684-005	03/13/2001	REAL	LEAD	4.90	UG/L	TR1		0.65	J1
GS44	01D0684-005	03/13/2001	REAL	LITHIUM	74.80	UG/L	TR1	B	0.05	J1
GS44	01D0684-005	03/13/2001	REAL	MAGNESIUM	12300.00	UG/L	TR1		2.20	V1
GS44	01D0684-005	03/13/2001	REAL	MANGANESE	63.20	UG/L	TR1		0.02	V1
GS44	01D0684-005	03/13/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS44	01D0684-005	03/13/2001	REAL	MOLYBDENUM	1.80	UG/L	TR1	B	0.25	UJ1
GS44	01D0684-005	03/13/2001	REAL	NICKEL	6.20	UG/L	TR1	B	0.30	V1
GS44	01D0684-005	03/13/2001	REAL	POTASSIUM	24300.00	UG/L	TR1	B	88.20	J1
GS44	01D0684-005	03/13/2001	REAL	SELENIUM	2.40	UG/L	TR1	B	0.65	J1
GS44	01D0684-005	03/13/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS44	01D0684-005	03/13/2001	REAL	SODIUM	204000.00	UG/L	TR1		2.60	J1
GS44	01D0684-005	03/13/2001	REAL	STRONTIUM	413.00	UG/L	TR1		0.25	V1
GS44	01D0684-005	03/13/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	J1
GS44	01D0684-005	03/13/2001	REAL	TIN	2.00	UG/L	TR1	B	0.88	UJ1
GS44	01D0684-005	03/13/2001	REAL	VANADIUM	14.80	UG/L	TR1	B	0.18	V1
GS44	01D0684-005	03/13/2001	REAL	ZINC	168.00	UG/L	TR1		0.08	V1
GS44	01D0704-001	04/06/2001	REAL	ALUMINUM	6540.00	UG/L	TR1		3.20	V1
GS44	01D0704-001	04/06/2001	REAL	ANTIMONY	0.76	UG/L	TR1	B	0.48	V1
GS44	01D0704-001	04/06/2001	REAL	ARSENIC	2.60	UG/L	TR1	B	0.58	UJ1
GS44	01D0704-001	04/06/2001	REAL	BARIUM	95.90	UG/L	TR1	B	0.05	V1
GS44	01D0704-001	04/06/2001	REAL	BERYLLIUM	0.37	UG/L	TR1	B	0.05	UJ1
GS44	01D0704-001	04/06/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	01D0704-001	04/06/2001	REAL	CALCIUM	40900.00	UG/L	TR1		2.00	V1
GS44	01D0704-001	04/06/2001	REAL	CHROMIUM	6.20	UG/L	TR1		0.22	V1
GS44	01D0704-001	04/06/2001	REAL	COBALT	0.78	UG/L	TR1	B	0.20	V1
GS44	01D0704-001	04/06/2001	REAL	COPPER	9.40	UG/L	TR1		0.18	V1
GS44	01D0704-001	04/06/2001	REAL	IRON	4230.00	UG/L	TR1		3.90	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D0704-001	04/06/2001	REAL	LEAD	3.60	UG/L	TR1		0.65	J1
GS44	01D0704-001	04/06/2001	REAL	LITHIUM	28.50	UG/L	TR1	B	0.05	J1
GS44	01D0704-001	04/06/2001	REAL	MAGNESIUM	7520.00	UG/L	TR1		2.20	V1
GS44	01D0704-001	04/06/2001	REAL	MANGANESE	44.20	UG/L	TR1		0.02	V1
GS44	01D0704-001	04/06/2001	REAL	MERCURY	1.20	UG/L	TR1		0.10	V1
GS44	01D0704-001	04/06/2001	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.25	UJ1
GS44	01D0704-001	04/06/2001	REAL	NICKEL	4.60	UG/L	TR1	B	0.30	V1
GS44	01D0704-001	04/06/2001	REAL	POTASSIUM	10000.00	UG/L	TR1		8.80	J1
GS44	01D0704-001	04/06/2001	REAL	SELENIUM	1.60	UG/L	TR1	B	0.65	J1
GS44	01D0704-001	04/06/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS44	01D0704-001	04/06/2001	REAL	SODIUM	79500.00	UG/L	TR1		2.60	J1
GS44	01D0704-001	04/06/2001	REAL	STRONTIUM	225.00	UG/L	TR1		0.02	V1
GS44	01D0704-001	04/06/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	J1
GS44	01D0704-001	04/06/2001	REAL	TIN	1.10	UG/L	TR1	B	0.88	UJ1
GS44	01D0704-001	04/06/2001	REAL	VANADIUM	12.10	UG/L	TR1	B	0.18	V1
GS44	01D0704-001	04/06/2001	REAL	ZINC	115.00	UG/L	TR1		0.08	V1
GS44	01D0753-003	04/18/2001	REAL	ALUMINUM	6180.00	UG/L	TR1		6.60	V
GS44	01D0753-003	04/18/2001	REAL	ANTIMONY	0.80	UG/L	TR1		0.45	V
GS44	01D0753-003	04/18/2001	REAL	ARSENIC	2.20	UG/L	TR1		0.72	V
GS44	01D0753-003	04/18/2001	REAL	BARIUM	122.00	UG/L	TR1	B	0.05	V
GS44	01D0753-003	04/18/2001	REAL	BERYLLIUM	0.33	UG/L	TR1	B	0.02	V
GS44	01D0753-003	04/18/2001	REAL	CADMIUM	0.09	UG/L	TR1		0.08	V
GS44	01D0753-003	04/18/2001	REAL	CALCIUM	44500.00	UG/L	TR1	B	3.30	V
GS44	01D0753-003	04/18/2001	REAL	CHROMIUM	6.50	UG/L	TR1	B	0.15	V
GS44	01D0753-003	04/18/2001	REAL	COBALT	1.20	UG/L	TR1		0.20	V
GS44	01D0753-003	04/18/2001	REAL	COPPER	9.40	UG/L	TR1		0.20	V
GS44	01D0753-003	04/18/2001	REAL	IRON	4480.00	UG/L	TR1	B	3.60	V
GS44	01D0753-003	04/18/2001	REAL	LEAD	4.20	UG/L	TR1		0.58	V
GS44	01D0753-003	04/18/2001	REAL	LITHIUM	26.50	UG/L	TR1	B	0.02	V
GS44	01D0753-003	04/18/2001	REAL	MAGNESIUM	7730.00	UG/L	TR1		1.60	V
GS44	01D0753-003	04/18/2001	REAL	MANGANESE	62.80	UG/L	TR1		0.02	V
GS44	01D0753-003	04/18/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS44	01D0753-003	04/18/2001	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.32	V

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GS44	01D0753-003	04/18/2001	REAL	NICKEL	4.60	UG/L	TR1	B	0.35	V
GS44	01D0753-003	04/18/2001	REAL	POTASSIUM	15300.00	UG/L	TR1		4.90	J
GS44	01D0753-003	04/18/2001	REAL	SELENIUM	1.80	UG/L	TR1	B	1.10	V
GS44	01D0753-003	04/18/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.22	V
GS44	01D0753-003	04/18/2001	REAL	SODIUM	267000.00	UG/L	TR1		6.60	J
GS44	01D0753-003	04/18/2001	REAL	STRONTIUM	238.00	UG/L	TR1		0.02	V
GS44	01D0753-003	04/18/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.92	V
GS44	01D0753-003	04/18/2001	REAL	TIN	0.88	UG/L	TR1	U	0.48	V
GS44	01D0753-003	04/18/2001	REAL	VANADIUM	12.50	UG/L	TR1	B	0.15	V
GS44	01D0753-003	04/18/2001	REAL	ZINC	132.00	UG/L	TR1		0.20	V
GS44	01D0776-010	04/26/2001	REAL	ALUMINUM	5980.00	UG/L	TR1		3.20	V
GS44	01D0776-010	04/26/2001	REAL	ANTIMONY	0.72	UG/L	TR1	B	0.48	V
GS44	01D0776-010	04/26/2001	REAL	ARSENIC	2.20	UG/L	TR1	B	0.58	V
GS44	01D0776-010	04/26/2001	REAL	BARIUM	92.40	UG/L	TR1	B	0.05	V
GS44	01D0776-010	04/26/2001	REAL	BERYLLIUM	0.22	UG/L	TR1	B	0.05	V
GS44	01D0776-010	04/26/2001	REAL	CADMIUM	0.14	UG/L	TR1	B	0.08	V
GS44	01D0776-010	04/26/2001	REAL	CALCIUM	40200.00	UG/L	TR1		2.00	V
GS44	01D0776-010	04/26/2001	REAL	CHROMIUM	5.70	UG/L	TR1		0.22	V
GS44	01D0776-010	04/26/2001	REAL	COBALT	1.00	UG/L	TR1	B	0.20	V
GS44	01D0776-010	04/26/2001	REAL	COPPER	8.90	UG/L	TR1		0.18	V
GS44	01D0776-010	04/26/2001	REAL	IRON	4000.00	UG/L	TR1		3.90	V
GS44	01D0776-010	04/26/2001	REAL	LEAD	3.40	UG/L	TR1		0.65	J
GS44	01D0776-010	04/26/2001	REAL	LITHIUM	22.70	UG/L	TR1	BEN	0.05	J
GS44	01D0776-010	04/26/2001	REAL	MAGNESIUM	7700.00	UG/L	TR1		2.20	V
GS44	01D0776-010	04/26/2001	REAL	MANGANESE	39.70	UG/L	TR1		0.02	V
GS44	01D0776-010	04/26/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS44	01D0776-010	04/26/2001	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.25	V
GS44	01D0776-010	04/26/2001	REAL	NICKEL	4.70	UG/L	TR1	B	0.30	V
GS44	01D0776-010	04/26/2001	REAL	POTASSIUM	7810.00	UG/L	TR1	E	8.80	J
GS44	01D0776-010	04/26/2001	REAL	SELENIUM	1.60	UG/L	TR1	B	0.65	J
GS44	01D0776-010	04/26/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V
GS44	01D0776-010	04/26/2001	REAL	SODIUM	77500.00	UG/L	TR1		24.20	V
GS44	01D0776-010	04/26/2001	REAL	STRONTIUM	228.00	UG/L	TR1		0.02	V

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GS44	01D0776-010	04/26/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V
GS44	01D0776-010	04/26/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V
GS44	01D0776-010	04/26/2001	REAL	VANADIUM	11.50	UG/L	TR1	B	0.18	V
GS44	01D0776-010	04/26/2001	REAL	ZINC	96.70	UG/L	TR1		0.08	V
GS44	01D0790-010	05/04/2001	REAL	ALUMINUM	5800.00	UG/L	TR1		3.20	V1
GS44	01D0790-010	05/04/2001	REAL	ANTIMONY	0.53	UG/L	TR1	B	0.48	V1
GS44	01D0790-010	05/04/2001	REAL	ARSENIC	2.80	UG/L	TR1	B	0.58	V1
GS44	01D0790-010	05/04/2001	REAL	BARIUM	44.60	UG/L	TR1	B	0.05	V1
GS44	01D0790-010	05/04/2001	REAL	BERYLLIUM	0.26	UG/L	TR1	B	0.05	V1
GS44	01D0790-010	05/04/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	01D0790-010	05/04/2001	REAL	CALCIUM	12700.00	UG/L	TR1		2.00	V1
GS44	01D0790-010	05/04/2001	REAL	CHROMIUM	6.10	UG/L	TR1		0.22	V1
GS44	01D0790-010	05/04/2001	REAL	COBALT	0.72	UG/L	TR1	B	0.20	V1
GS44	01D0790-010	05/04/2001	REAL	COPPER	7.50	UG/L	TR1		0.18	V1
GS44	01D0790-010	05/04/2001	REAL	IRON	3920.00	UG/L	TR1		3.90	V1
GS44	01D0790-010	05/04/2001	REAL	LEAD	3.90	UG/L	TR1		0.65	V1
GS44	01D0790-010	05/04/2001	REAL	LITHIUM	6.40	UG/L	TR1	B	0.05	J1
GS44	01D0790-010	05/04/2001	REAL	MAGNESIUM	2720.00	UG/L	TR1	B	2.20	V1
GS44	01D0790-010	05/04/2001	REAL	MANGANESE	33.80	UG/L	TR1		0.02	J1
GS44	01D0790-010	05/04/2001	REAL	MERCURY	0.13	UG/L	TR1		0.10	V1
GS44	01D0790-010	05/04/2001	REAL	MOLYBDENUM	0.85	UG/L	TR1	B	0.25	V1
GS44	01D0790-010	05/04/2001	REAL	NICKEL	4.70	UG/L	TR1	B	0.30	V1
GS44	01D0790-010	05/04/2001	REAL	POTASSIUM	3900.00	UG/L	TR1	B	8.80	J1
GS44	01D0790-010	05/04/2001	REAL	SELENIUM	1.20	UG/L	TR1	B	0.65	V1
GS44	01D0790-010	05/04/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS44	01D0790-010	05/04/2001	REAL	SODIUM	18800.00	UG/L	TR1		4.80	J1
GS44	01D0790-010	05/04/2001	REAL	STRONTIUM	66.30	UG/L	TR1	B	0.02	V1
GS44	01D0790-010	05/04/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS44	01D0790-010	05/04/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS44	01D0790-010	05/04/2001	REAL	TOTAL SUSPENDED SOLIDS	53.0	MG/L	TR1		5.0	V1
GS44	01D0790-010	05/04/2001	REAL	VANADIUM	11.23	UG/L	TR1	B	0.18	V1
GS44	01D0790-010	05/04/2001	REAL	ZINC	68.00	UG/L	TR1		0.08	V1
GS44	01D0887-003	05/05/2001	REAL	ALUMINUM	4220.00	UG/L	TR1		3.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D0887-003	05/05/2001	REAL	ANTIMONY	0.82	UG/L	TR1	B	0.48	V1
GS44	01D0887-003	05/05/2001	REAL	ARSENIC	1.90	UG/L	TR1	B	0.58	V1
GS44	01D0887-003	05/05/2001	REAL	BARIUM	136.00	UG/L	TR1		0.05	V1
GS44	01D0887-003	05/05/2001	REAL	BERYLLIUM	0.15	UG/L	TR1	B	0.05	J1
GS44	01D0887-003	05/05/2001	REAL	CADMIUM	0.08	UG/L	TR1	B	0.08	V1
GS44	01D0887-003	05/05/2001	REAL	CALCIUM	68400.00	UG/L	TR1		2.00	V1
GS44	01D0887-003	05/05/2001	REAL	CHROMIUM	4.80	UG/L	TR1		0.22	V1
GS44	01D0887-003	05/05/2001	REAL	COBALT	1.00	UG/L	TR1	B	0.20	V1
GS44	01D0887-003	05/05/2001	REAL	COPPER	9.10	UG/L	TR1		0.18	V1
GS44	01D0887-003	05/05/2001	REAL	IRON	3270.00	UG/L	TR1		3.90	V1
GS44	01D0887-003	05/05/2001	REAL	LEAD	3.40	UG/L	TR1		0.65	V1
GS44	01D0887-003	05/05/2001	REAL	LITHIUM	31.60	UG/L	TR1	B	0.05	V1
GS44	01D0887-003	05/05/2001	REAL	MAGNESIUM	13000.00	UG/L	TR1		2.20	V1
GS44	01D0887-003	05/05/2001	REAL	MANGANESE	40.80	UG/L	TR1		0.02	V1
GS44	01D0887-003	05/05/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS44	01D0887-003	05/05/2001	REAL	MOLYBDENUM	2.00	UG/L	TR1	B	0.25	V1
GS44	01D0887-003	05/05/2001	REAL	NICKEL	4.00	UG/L	TR1	B	0.30	V1
GS44	01D0887-003	05/05/2001	REAL	POTASSIUM	10500.00	UG/L	TR1		8.80	J1
GS44	01D0887-003	05/05/2001	REAL	SELENIUM	4.00	UG/L	TR1		0.65	V1
GS44	01D0887-003	05/05/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS44	01D0887-003	05/05/2001	REAL	SODIUM	43400.00	UG/L	TR1		24.20	V1
GS44	01D0887-003	05/05/2001	REAL	STRONTIUM	403.00	UG/L	TR1		0.02	V1
GS44	01D0887-003	05/05/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS44	01D0887-003	05/05/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS44	01D0887-003	05/05/2001	REAL	VANADIUM	9.70	UG/L	TR1	B	0.18	V1
GS44	01D0887-003	05/05/2001	REAL	ZINC	93.70	UG/L	TR1		0.08	V1
GS44	01D1011-005	05/24/2001	REAL	ALUMINUM	1960.00	UG/L	TR1		3.20	V1
GS44	01D1011-005	05/24/2001	REAL	ANTIMONY	1.10	UG/L	TR1	B	0.48	V1
GS44	01D1011-005	05/24/2001	REAL	ARSENIC	1.20	UG/L	TR1	B	0.58	V1
GS44	01D1011-005	05/24/2001	REAL	BARIUM	155.00	UG/L	TR1		0.05	V1
GS44	01D1011-005	05/24/2001	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.05	UJ1
GS44	01D1011-005	05/24/2001	REAL	CADMIUM	0.47	UG/L	TR1	B	0.08	V1
GS44	01D1011-005	05/24/2001	REAL	CALCIUM	88700.00	UG/L	TR1		6.60	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D1011-005	05/24/2001	REAL	CHROMIUM	3.10	UG/L	TR1		0.22	UJ1
GS44	01D1011-005	05/24/2001	REAL	COBALT	0.55	UG/L	TR1	B	0.20	V1
GS44	01D1011-005	05/24/2001	REAL	COPPER	3.70	UG/L	TR1		0.18	V1
GS44	01D1011-005	05/24/2001	REAL	IRON	1900.00	UG/L	TR1		3.90	V1
GS44	01D1011-005	05/24/2001	REAL	LEAD	6.80	UG/L	TR1		0.65	V1
GS44	01D1011-005	05/24/2001	REAL	LITHIUM	68.30	UG/L	TR1	B	0.05	J1
GS44	01D1011-005	05/24/2001	REAL	MAGNESIUM	16300.00	UG/L	TR1		2.20	V1
GS44	01D1011-005	05/24/2001	REAL	MANGANESE	31.70	UG/L	TR1		0.02	V1
GS44	01D1011-005	05/24/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS44	01D1011-005	05/24/2001	REAL	MOLYBDENUM	1.60	UG/L	TR1	B	0.25	V1
GS44	01D1011-005	05/24/2001	REAL	NICKEL	2.90	UG/L	TR1	B	0.30	V1
GS44	01D1011-005	05/24/2001	REAL	POTASSIUM	10900.00	UG/L	TR1		8.80	J1
GS44	01D1011-005	05/24/2001	REAL	SELENIUM	3.90	UG/L	TR1		0.65	UJ1
GS44	01D1011-005	05/24/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS44	01D1011-005	05/24/2001	REAL	SODIUM	48200.00	UG/L	TR1		24.20	V1
GS44	01D1011-005	05/24/2001	REAL	STRONTIUM	489.00	UG/L	TR1	B	0.02	V1
GS44	01D1011-005	05/24/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS44	01D1011-005	05/24/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS44	01D1011-005	05/24/2001	REAL	VANADIUM	5.80	UG/L	TR1	B	0.18	V1
GS44	01D1011-005	05/24/2001	REAL	ZINC	102.00	UG/L	TR1		0.08	V1
GS44	01D1097-002	06/28/2001	REAL	ALUMINUM	12600.00	UG/L	TR1		3.20	V1
GS44	01D1097-002	06/28/2001	REAL	ANTIMONY	1.20	UG/L	TR1	B	0.48	V1
GS44	01D1097-002	06/28/2001	REAL	ARSENIC	5.60	UG/L	TR1		0.58	V1
GS44	01D1097-002	06/28/2001	REAL	BARIUM	122.00	UG/L	TR1		0.05	V1
GS44	01D1097-002	06/28/2001	REAL	BERYLLIUM	0.47	UG/L	TR1	B	0.05	V1
GS44	01D1097-002	06/28/2001	REAL	CADMIUM	0.18	UG/L	TR1	B	0.08	V1
GS44	01D1097-002	06/28/2001	REAL	CALCIUM	31900.00	UG/L	TR1		2.00	V1
GS44	01D1097-002	06/28/2001	REAL	CHROMIUM	14.10	UG/L	TR1		0.22	V1
GS44	01D1097-002	06/28/2001	REAL	COBALT	3.40	UG/L	TR1	B	0.20	V1
GS44	01D1097-002	06/28/2001	REAL	COPPER	21.10	UG/L	TR1		0.18	V1
GS44	01D1097-002	06/28/2001	REAL	IRON	10900.00	UG/L	TR1		3.90	V1
GS44	01D1097-002	06/28/2001	REAL	LEAD	12.50	UG/L	TR1		0.65	V1
GS44	01D1097-002	06/28/2001	REAL	LITHIUM	32.80	UG/L	TR1	B	0.05	J1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D1097-002	06/28/2001	REAL	MAGNESIUM	7180.00	UG/L	TR1		2.20	V1
GS44	01D1097-002	06/28/2001	REAL	MANGANESE	165.00	UG/L	TR1		0.02	V1
GS44	01D1097-002	06/28/2001	REAL	MERCURY	0.16	UG/L	TR1		0.10	V1
GS44	01D1097-002	06/28/2001	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	V1
GS44	01D1097-002	06/28/2001	REAL	NICKEL	11.10	UG/L	TR1	B	0.30	V1
GS44	01D1097-002	06/28/2001	REAL	POTASSIUM	8890.00	UG/L	TR1		8.80	J1
GS44	01D1097-002	06/28/2001	REAL	SELENIUM	2.80	UG/L	TR1	B	0.65	J1
GS44	01D1097-002	06/28/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS44	01D1097-002	06/28/2001	REAL	SODIUM	21200.00	UG/L	TR1		24.20	V1
GS44	01D1097-002	06/28/2001	REAL	STRONTIUM	174.00	UG/L	TR1	B	0.02	V1
GS44	01D1097-002	06/28/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS44	01D1097-002	06/28/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS44	01D1097-002	06/28/2001	REAL	VANADIUM	28.80	UG/L	TR1	B	0.18	V1
GS44	01D1097-002	06/28/2001	REAL	ZINC	217.00	UG/L	TR1		0.08	V1
GS44	01D1210-001	07/16/2001	REAL	ALUMINUM	61.50	UG/L	TR1		4.00	J1
GS44	01D1210-001	07/16/2001	REAL	ANTIMONY	0.95	UG/L	TR1	B	0.58	V1
GS44	01D1210-001	07/16/2001	REAL	ARSENIC	0.98	UG/L	TR1	U	0.98	V1
GS44	01D1210-001	07/16/2001	REAL	BARIUM	169.00	UG/L	TR1		0.02	V1
GS44	01D1210-001	07/16/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	J1
GS44	01D1210-001	07/16/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	01D1210-001	07/16/2001	REAL	CALCIUM	89700.00	UG/L	TR1		2.00	V1
GS44	01D1210-001	07/16/2001	REAL	CHROMIUM	0.35	UG/L	TR1	U	0.35	V1
GS44	01D1210-001	07/16/2001	REAL	COBALT	0.22	UG/L	TR1	U	0.22	V1
GS44	01D1210-001	07/16/2001	REAL	COPPER	1.90	UG/L	TR1	B	0.12	UJ1
GS44	01D1210-001	07/16/2001	REAL	IRON	52.00	UG/L	TR1	B	3.90	V1
GS44	01D1210-001	07/16/2001	REAL	LEAD	0.60	UG/L	TR1	U	0.60	V1
GS44	01D1210-001	07/16/2001	REAL	LITHIUM	77.60	UG/L	TR1	B	0.15	J1
GS44	01D1210-001	07/16/2001	REAL	MAGNESIUM	17700.00	UG/L	TR1		2.00	V1
GS44	01D1210-001	07/16/2001	REAL	MANGANESE	1.50	UG/L	TR1	B	0.02	V1
GS44	01D1210-001	07/16/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS44	01D1210-001	07/16/2001	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.25	V1
GS44	01D1210-001	07/16/2001	REAL	NICKEL	1.20	UG/L	TR1	B	0.42	V1
GS44	01D1210-001	07/16/2001	REAL	POTASSIUM	14600.00	UG/L	TR1	B	16.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D1210-001	07/16/2001	REAL	SELENIUM	3.40	UG/L	TR1		0.80	V1
GS44	01D1210-001	07/16/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS44	01D1210-001	07/16/2001	REAL	SODIUM	45700.00	UG/L	TR1		2.40	V1
GS44	01D1210-001	07/16/2001	REAL	STRONTIUM	547.00	UG/L	TR1		0.02	V1
GS44	01D1210-001	07/16/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS44	01D1210-001	07/16/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1
GS44	01D1210-001	07/16/2001	REAL	VANADIUM	1.80	UG/L	TR1	B	0.12	UJ1
GS44	01D1210-001	07/16/2001	REAL	ZINC	80.50	UG/L	TR1	B	0.10	V1
GS44	01D1357-004	08/06/2001	REAL	ALUMINUM	7540.00	UG/L	TR1		4.00	V1
GS44	01D1357-004	08/06/2001	REAL	ANTIMONY	0.67	UG/L	TR1	B	0.58	V1
GS44	01D1357-004	08/06/2001	REAL	ARSENIC	3.40	UG/L	TR1	B	0.98	V1
GS44	01D1357-004	08/06/2001	REAL	BARIUM	91.80	UG/L	TR1	B	0.02	V1
GS44	01D1357-004	08/06/2001	REAL	BERYLLIUM	0.35	UG/L	TR1	B	0.05	V1
GS44	01D1357-004	08/06/2001	REAL	CADMIUM	0.09	UG/L	TR1	B	0.08	UJ1
GS44	01D1357-004	08/06/2001	REAL	CALCIUM	32600.00	UG/L	TR1		2.00	V1
GS44	01D1357-004	08/06/2001	REAL	CHROMIUM	8.00	UG/L	TR1		0.35	V1
GS44	01D1357-004	08/06/2001	REAL	COBALT	1.80	UG/L	TR1	B	0.22	V1
GS44	01D1357-004	08/06/2001	REAL	COPPER	12.50	UG/L	TR1		0.12	V1
GS44	01D1357-004	08/06/2001	REAL	IRON	6060.00	UG/L	TR1		3.90	V1
GS44	01D1357-004	08/06/2001	REAL	LEAD	6.90	UG/L	TR1		0.60	UJ1
GS44	01D1357-004	08/06/2001	REAL	LITHIUM	31.00	UG/L	TR1	B	0.02	J1
GS44	01D1357-004	08/06/2001	REAL	MAGNESIUM	6630.00	UG/L	TR1		2.00	V1
GS44	01D1357-004	08/06/2001	REAL	MANGANESE	74.50	UG/L	TR1		0.02	V1
GS44	01D1357-004	08/06/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS44	01D1357-004	08/06/2001	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.25	V1
GS44	01D1357-004	08/06/2001	REAL	NICKEL	6.30	UG/L	TR1	B	0.42	V1
GS44	01D1357-004	08/06/2001	REAL	POTASSIUM	8040.00	UG/L	TR1		2.70	V1
GS44	01D1357-004	08/06/2001	REAL	SELENIUM	1.80	UG/L	TR1	B	0.80	J1
GS44	01D1357-004	08/06/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS44	01D1357-004	08/06/2001	REAL	SODIUM	21000.00	UG/L	TR1		0.40	V1
GS44	01D1357-004	08/06/2001	REAL	STRONTIUM	183.00	UG/L	TR1	B	0.02	V1
GS44	01D1357-004	08/06/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS44	01D1357-004	08/06/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	01D1357-004	08/06/2001	REAL	VANADIUM	16.50	UG/L	TR1	B	0.12	V1
GS44	01D1357-004	08/06/2001	REAL	ZINC	101.00	UG/L	TR1		0.10	V1
GS44	02D0002-004	08/27/2001	REAL	ALUMINUM	2810.00	UG/L	TR1		4.00	V1
GS44	02D0002-004	08/27/2001	REAL	ANTIMONY	0.58	UG/L	TR1	U	0.58	V1
GS44	02D0002-004	08/27/2001	REAL	ARSENIC	1.30	UG/L	TR1	B	0.98	V1
GS44	02D0002-004	08/27/2001	REAL	BARIUM	54.10	UG/L	TR1	B	0.02	V1
GS44	02D0002-004	08/27/2001	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.05	V1
GS44	02D0002-004	08/27/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	02D0002-004	08/27/2001	REAL	CALCIUM	21900.00	UG/L	TR1		2.00	V1
GS44	02D0002-004	08/27/2001	REAL	CHROMIUM	3.30	UG/L	TR1		0.35	V1
GS44	02D0002-004	08/27/2001	REAL	COBALT	0.55	UG/L	TR1	B	0.22	V1
GS44	02D0002-004	08/27/2001	REAL	COPPER	8.00	UG/L	TR1		0.12	V1
GS44	02D0002-004	08/27/2001	REAL	IRON	2300.00	UG/L	TR1		3.90	V1
GS44	02D0002-004	08/27/2001	REAL	LEAD	3.70	UG/L	TR1		0.60	UJ1
GS44	02D0002-004	08/27/2001	REAL	LITHIUM	18.10	UG/L	TR1	B	0.02	V1
GS44	02D0002-004	08/27/2001	REAL	MAGNESIUM	4480.00	UG/L	TR1	B	2.00	V1
GS44	02D0002-004	08/27/2001	REAL	MANGANESE	26.10	UG/L	TR1		0.02	V1
GS44	02D0002-004	08/27/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS44	02D0002-004	08/27/2001	REAL	MOLYBDENUM	0.84	UG/L	TR1	B	4.00	V1
GS44	02D0002-004	08/27/2001	REAL	NICKEL	2.50	UG/L	TR1	B	0.42	V1
GS44	02D0002-004	08/27/2001	REAL	POTASSIUM	5770.00	UG/L	TR1		2.70	V1
GS44	02D0002-004	08/27/2001	REAL	SELENIUM	0.80	UG/L	TR1	U	0.80	V1
GS44	02D0002-004	08/27/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS44	02D0002-004	08/27/2001	REAL	SODIUM	19900.00	UG/L	TR1		0.40	J1
GS44	02D0002-004	08/27/2001	REAL	STRONTIUM	126.00	UG/L	TR1	B	0.58	V1
GS44	02D0002-004	08/27/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
GS44	02D0002-004	08/27/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1
GS44	02D0002-004	08/27/2001	REAL	VANADIUM	6.90	UG/L	TR1	B	0.12	V1
GS44	02D0002-004	08/27/2001	REAL	ZINC	57.80	UG/L	TR1		0.10	V1
GS49	01D0548-008	02/11/2001	REAL	ALUMINUM	5610.00	UG/L	TR1		3.10	V1
GS49	01D0548-008	02/11/2001	REAL	ANTIMONY	0.85	UG/L	TR1	B	0.42	V1
GS49	01D0548-008	02/11/2001	REAL	ARSENIC	2.40	UG/L	TR1	B	0.80	V1
GS49	01D0548-008	02/11/2001	REAL	BARIUM	149.00	UG/L	TR1		0.05	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	01D0548-008	02/11/2001	REAL	BERYLLIUM	0.27	UG/L	TR1	B	0.02	J1
GS49	01D0548-008	02/11/2001	REAL	CADMIUM	0.68	UG/L	TR1	B	0.08	V1
GS49	01D0548-008	02/11/2001	REAL	CALCIUM	35500.00	UG/L	TR1		31.20	V1
GS49	01D0548-008	02/11/2001	REAL	CHROMIUM	5.50	UG/L	TR1		0.18	V1
GS49	01D0548-008	02/11/2001	REAL	COBALT	1.30	UG/L	TR1	B	0.18	UJ1
GS49	01D0548-008	02/11/2001	REAL	COPPER	24.40	UG/L	TR1		0.15	V1
GS49	01D0548-008	02/11/2001	REAL	IRON	3300.00	UG/L	TR1		4.40	V1
GS49	01D0548-008	02/11/2001	REAL	LEAD	2.70	UG/L	TR1		0.55	UJ1
GS49	01D0548-008	02/11/2001	REAL	LITHIUM	9.50	UG/L	TR1	B	0.05	J1
GS49	01D0548-008	02/11/2001	REAL	MAGNESIUM	4630.00	UG/L	TR1	B	1.50	V1
GS49	01D0548-008	02/11/2001	REAL	MANGANESE	108.00	UG/L	TR1		0.05	V1
GS49	01D0548-008	02/11/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS49	01D0548-008	02/11/2001	REAL	MOLYBDENUM	0.71	UG/L	TR1	B	0.25	V1
GS49	01D0548-008	02/11/2001	REAL	NICKEL	5.40	UG/L	TR1	B	0.28	V1
GS49	01D0548-008	02/11/2001	REAL	POTASSIUM	6290.00	UG/L	TR1		611.00	V1
GS49	01D0548-008	02/11/2001	REAL	SELENIUM	0.78	UG/L	TR1	U	0.78	V1
GS49	01D0548-008	02/11/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS49	01D0548-008	02/11/2001	REAL	SODIUM	240000.00	UG/L	TR1		31.10	V1
GS49	01D0548-008	02/11/2001	REAL	STRONTIUM	162.00	UG/L	TR1	B	0.02	V1
GS49	01D0548-008	02/11/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	J1
GS49	01D0548-008	02/11/2001	REAL	TIN	0.82	UG/L	TR1	B	0.58	UJ1
GS49	01D0548-008	02/11/2001	REAL	VANADIUM	8.90	UG/L	TR1	B	0.15	V1
GS49	01D0548-008	02/11/2001	REAL	ZINC	552.00	UG/L	TR1		0.12	V1
GS49	01D0684-004	03/13/2001	REAL	ALUMINUM	5740.00	UG/L	TR1		3.20	V1
GS49	01D0684-004	03/13/2001	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V1
GS49	01D0684-004	03/13/2001	REAL	ARSENIC	2.90	UG/L	TR1	B	0.58	UJ1
GS49	01D0684-004	03/13/2001	REAL	BARIUM	48.30	UG/L	TR1	B	0.05	V1
GS49	01D0684-004	03/13/2001	REAL	BERYLLIUM	0.32	UG/L	TR1	B	0.05	UJ1
GS49	01D0684-004	03/13/2001	REAL	CADMIUM	0.18	UG/L	TR1	B	0.08	UJ1
GS49	01D0684-004	03/13/2001	REAL	CALCIUM	8190.00	UG/L	TR1		2.00	V1
GS49	01D0684-004	03/13/2001	REAL	CHROMIUM	6.40	UG/L	TR1		0.22	V1
GS49	01D0684-004	03/13/2001	REAL	COBALT	0.91	UG/L	TR1	B	0.20	V1
GS49	01D0684-004	03/13/2001	REAL	COPPER	23.80	UG/L	TR1	B	0.18	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	01D0684-004	03/13/2001	REAL	IRON	3760.00	UG/L	TR1		3.92	V1
GS49	01D0684-004	03/13/2001	REAL	LEAD	4.00	UG/L	TR1		0.65	J1
GS49	01D0684-004	03/13/2001	REAL	LITHIUM	6.70	UG/L	TR1	B	0.05	J1
GS49	01D0684-004	03/13/2001	REAL	MAGNESIUM	1720.00	UG/L	TR1	B	2.20	V1
GS49	01D0684-004	03/13/2001	REAL	MANGANESE	57.10	UG/L	TR1		0.02	V1
GS49	01D0684-004	03/13/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS49	01D0684-004	03/13/2001	REAL	MOLYBDENUM	0.88	UG/L	TR1	B	0.25	UJ1
GS49	01D0684-004	03/13/2001	REAL	NICKEL	4.30	UG/L	TR1	B	0.30	V1
GS49	01D0684-004	03/13/2001	REAL	POTASSIUM	2620.00	UG/L	TR1	B	8.80	J1
GS49	01D0684-004	03/13/2001	REAL	SELENIUM	1.70	UG/L	TR1	B	0.65	J1
GS49	01D0684-004	03/13/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS49	01D0684-004	03/13/2001	REAL	SODIUM	66700.00	UG/L	TR1		2.60	J1
GS49	01D0684-004	03/13/2001	REAL	STRONTIUM	39.70	UG/L	TR1	B	0.25	V1
GS49	01D0684-004	03/13/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	J1
GS49	01D0684-004	03/13/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS49	01D0684-004	03/13/2001	REAL	VANADIUM	9.70	UG/L	TR1	B	0.18	V1
GS49	01D0684-004	03/13/2001	REAL	ZINC	226.00	UG/L	TR1		0.08	V1
GS49	01D0704-002	04/10/2001	REAL	ALUMINUM	7070.00	UG/L	TR1		3.20	V1
GS49	01D0704-002	04/10/2001	REAL	ANTIMONY	2.40	UG/L	TR1	B	0.48	V1
GS49	01D0704-002	04/10/2001	REAL	ARSENIC	3.70	UG/L	TR1	B	0.58	V1
GS49	01D0704-002	04/10/2001	REAL	BARIUM	44.00	UG/L	TR1	B	0.05	V1
GS49	01D0704-002	04/10/2001	REAL	BERYLLIUM	0.36	UG/L	TR1	B	0.05	UJ1
GS49	01D0704-002	04/10/2001	REAL	CADMIUM	0.18	UG/L	TR1	B	0.08	UJ1
GS49	01D0704-002	04/10/2001	REAL	CALCIUM	6660.00	UG/L	TR1		2.00	V1
GS49	01D0704-002	04/10/2001	REAL	CHROMIUM	7.70	UG/L	TR1		0.22	V1
GS49	01D0704-002	04/10/2001	REAL	COBALT	0.94	UG/L	TR1	B	0.20	V1
GS49	01D0704-002	04/10/2001	REAL	COPPER	29.10	UG/L	TR1		0.18	V1
GS49	01D0704-002	04/10/2001	REAL	IRON	5050.00	UG/L	TR1		3.90	V1
GS49	01D0704-002	04/10/2001	REAL	LEAD	5.40	UG/L	TR1		0.65	J1
GS49	01D0704-002	04/10/2001	REAL	LITHIUM	5.90	UG/L	TR1	B	0.05	J1
GS49	01D0704-002	04/10/2001	REAL	MAGNESIUM	1690.00	UG/L	TR1	B	2.20	V1
GS49	01D0704-002	04/10/2001	REAL	MANGANESE	49.20	UG/L	TR1		0.02	V1
GS49	01D0704-002	04/10/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	01D0704-002	04/10/2001	REAL	MOLYBDENUM	0.65	UG/L	TR1	B	0.25	UJ1
GS49	01D0704-002	04/10/2001	REAL	NICKEL	5.80	UG/L	TR1	B	0.30	V1
GS49	01D0704-002	04/10/2001	REAL	POTASSIUM	2930.00	UG/L	TR1	B	8.80	J1
GS49	01D0704-002	04/10/2001	REAL	SELENIUM	0.82	UG/L	TR1	B	0.65	J1
GS49	01D0704-002	04/10/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS49	01D0704-002	04/10/2001	REAL	SODIUM	40700.00	UG/L	TR1		2.60	J1
GS49	01D0704-002	04/10/2001	REAL	STRONTIUM	32.30	UG/L	TR1	B	0.02	V1
GS49	01D0704-002	04/10/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	J1
GS49	01D0704-002	04/10/2001	REAL	TIN	0.93	UG/L	TR1	B	0.88	UJ1
GS49	01D0704-002	04/10/2001	REAL	VANADIUM	13.00	UG/L	TR1	B	0.18	V1
GS49	01D0704-002	04/10/2001	REAL	ZINC	165.00	UG/L	TR1		0.08	V1
GS49	01D0790-011	04/20/2001	REAL	ALUMINUM	6810.00	UG/L	TR1		3.20	V1
GS49	01D0790-011	04/20/2001	REAL	ANTIMONY	2.20	UG/L	TR1	B	0.48	V1
GS49	01D0790-011	04/20/2001	REAL	ARSENIC	2.90	UG/L	TR1	B	0.58	V1
GS49	01D0790-011	04/20/2001	REAL	BARIUM	45.00	UG/L	TR1	B	0.05	V1
GS49	01D0790-011	04/20/2001	REAL	BERYLLIUM	0.34	UG/L	TR1	B	0.05	V1
GS49	01D0790-011	04/20/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS49	01D0790-011	04/20/2001	REAL	CALCIUM	9980.00	UG/L	TR1		2.00	V1
GS49	01D0790-011	04/20/2001	REAL	CHROMIUM	7.30	UG/L	TR1		0.22	V1
GS49	01D0790-011	04/20/2001	REAL	COBALT	1.00	UG/L	TR1	B	0.20	V1
GS49	01D0790-011	04/20/2001	REAL	COPPER	14.30	UG/L	TR1		0.18	V1
GS49	01D0790-011	04/20/2001	REAL	IRON	4910.00	UG/L	TR1		3.90	V1
GS49	01D0790-011	04/20/2001	REAL	LEAD	4.10	UG/L	TR1		0.65	V1
GS49	01D0790-011	04/20/2001	REAL	LITHIUM	5.80	UG/L	TR1	B	0.05	J1
GS49	01D0790-011	04/20/2001	REAL	MAGNESIUM	2060.00	UG/L	TR1	B	2.20	V1
GS49	01D0790-011	04/20/2001	REAL	MANGANESE	46.70	UG/L	TR1		0.02	V1
GS49	01D0790-011	04/20/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS49	01D0790-011	04/20/2001	REAL	MOLYBDENUM	0.47	UG/L	TR1	B	0.25	V1
GS49	01D0790-011	04/20/2001	REAL	NICKEL	6.00	UG/L	TR1	B	0.30	V1
GS49	01D0790-011	04/20/2001	REAL	POTASSIUM	3120.00	UG/L	TR1	B	8.80	J1
GS49	01D0790-011	04/20/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	V1
GS49	01D0790-011	04/20/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS49	01D0790-011	04/20/2001	REAL	SODIUM	65400.00	UG/L	TR1		24.20	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	01D0790-011	04/20/2001	REAL	STRONTIUM	44.80	UG/L	TR1	B	0.02	V1
GS49	01D0790-011	04/20/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS49	01D0790-011	04/20/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS49	01D0790-011	04/20/2001	REAL	VANADIUM	12.70	UG/L	TR1	B	0.18	V1
GS49	01D0790-011	04/20/2001	REAL	ZINC	108.00	UG/L	TR1		0.08	V1
GS49	01D1097-003	05/05/2001	REAL	ALUMINUM	22300.00	UG/L	TR1		3.20	V1
GS49	01D1097-003	05/05/2001	REAL	ANTIMONY	2.90	UG/L	TR1	B	0.48	V1
GS49	01D1097-003	05/05/2001	REAL	ARSENIC	10.00	UG/L	TR1		0.58	V1
GS49	01D1097-003	05/05/2001	REAL	BARIUM	137.00	UG/L	TR1		0.05	V1
GS49	01D1097-003	05/05/2001	REAL	BERYLLIUM	1.10	UG/L	TR1		0.05	V1
GS49	01D1097-003	05/05/2001	REAL	CADMIUM	0.14	UG/L	TR1	B	0.08	V1
GS49	01D1097-003	05/05/2001	REAL	CALCIUM	13200.00	UG/L	TR1		2.00	V1
GS49	01D1097-003	05/05/2001	REAL	CHROMIUM	24.00	UG/L	TR1		0.22	V1
GS49	01D1097-003	05/05/2001	REAL	COBALT	6.70	UG/L	TR1	B	0.20	V1
GS49	01D1097-003	05/05/2001	REAL	COPPER	45.10	UG/L	TR1		0.18	V1
GS49	01D1097-003	05/05/2001	REAL	IRON	19700.00	UG/L	TR1		3.90	V1
GS49	01D1097-003	05/05/2001	REAL	LEAD	19.40	UG/L	TR1		0.65	V1
GS49	01D1097-003	05/05/2001	REAL	LITHIUM	16.70	UG/L	TR1	B	0.05	J1
GS49	01D1097-003	05/05/2001	REAL	MAGNESIUM	4700.00	UG/L	TR1	B	2.20	V1
GS49	01D1097-003	05/05/2001	REAL	MANGANESE	295.00	UG/L	TR1		0.02	V1
GS49	01D1097-003	05/05/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS49	01D1097-003	05/05/2001	REAL	MOLYBDENUM	0.77	UG/L	TR1	B	0.25	V1
GS49	01D1097-003	05/05/2001	REAL	NICKEL	19.20	UG/L	TR1	B	0.30	V1
GS49	01D1097-003	05/05/2001	REAL	POTASSIUM	5590.00	UG/L	TR1		8.80	J1
GS49	01D1097-003	05/05/2001	REAL	SELENIUM	2.30	UG/L	TR1	B	0.65	J1
GS49	01D1097-003	05/05/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS49	01D1097-003	05/05/2001	REAL	SODIUM	8560.00	UG/L	TR1		24.20	V1
GS49	01D1097-003	05/05/2001	REAL	STRONTIUM	61.00	UG/L	TR1	B	0.02	V1
GS49	01D1097-003	05/05/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS49	01D1097-003	05/05/2001	REAL	TIN	2.10	UG/L	TR1	B	0.88	V1
GS49	01D1097-003	05/05/2001	REAL	VANADIUM	47.10	UG/L	TR1		0.18	V1
GS49	01D1097-003	05/05/2001	REAL	ZINC	251.00	UG/L	TR1		0.08	V1
GS49	02D0299-003	07/25/2001	REAL	ALUMINUM	1190.00	UG/L	TR1		5.50	

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GS49	02D0299-003	07/25/2001	REAL	ANTIMONY	0.42	UG/L	TR1	U	0.42	
GS49	02D0299-003	07/25/2001	REAL	ARSENIC	0.80	UG/L	TR1	U	0.80	
GS49	02D0299-003	07/25/2001	REAL	BARIUM	8.00	UG/L	TR1	B	0.02	
GS49	02D0299-003	07/25/2001	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.02	
GS49	02D0299-003	07/25/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	
GS49	02D0299-003	07/25/2001	REAL	CALCIUM	8570.00	UG/L	TR1		11.10	
GS49	02D0299-003	07/25/2001	REAL	CHROMIUM	2.70	UG/L	TR1		0.15	
GS49	02D0299-003	07/25/2001	REAL	COBALT	0.97	UG/L	TR1	B	0.20	
GS49	02D0299-003	07/25/2001	REAL	COPPER	2.60	UG/L	TR1	B	0.12	
GS49	02D0299-003	07/25/2001	REAL	IRON	1580.00	UG/L	TR1		4.30	
GS49	02D0299-003	07/25/2001	REAL	LEAD	2.00	UG/L	TR1		0.48	
GS49	02D0299-003	07/25/2001	REAL	LITHIUM	2.10	UG/L	TR1	B	0.02	
GS49	02D0299-003	07/25/2001	REAL	MAGNESIUM	800.00	UG/L	TR1	B	1.00	
GS49	02D0299-003	07/25/2001	REAL	MANGANESE	43.10	UG/L	TR1		0.02	
GS49	02D0299-003	07/25/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	
GS49	02D0299-003	07/25/2001	REAL	MOLYBDENUM	0.28	UG/L	TR1	U	0.28	
GS49	02D0299-003	07/25/2001	REAL	NICKEL	2.80	UG/L	TR1	B	0.25	
GS49	02D0299-003	07/25/2001	REAL	POTASSIUM	383.00	UG/L	TR1	B	4.80	
GS49	02D0299-003	07/25/2001	REAL	SELENIUM	0.55	UG/L	TR1	U	0.55	
GS49	02D0299-003	07/25/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	
GS49	02D0299-003	07/25/2001	REAL	SODIUM	492.00	UG/L	TR1	B	8.80	
GS49	02D0299-003	07/25/2001	REAL	STRONTIUM	10.70	UG/L	TR1	B	0.02	
GS49	02D0299-003	07/25/2001	REAL	THALLIUM	0.78	UG/L	TR1	B	0.70	
GS49	02D0299-003	07/25/2001	REAL	TIN	0.60	UG/L	TR1	U	0.60	
GS49	02D0299-003	07/25/2001	REAL	VANADIUM	1.30	UG/L	TR1	B	0.12	
GS49	02D0299-003	07/25/2001	REAL	ZINC	11.50	UG/L	TR1	B	0.08	
GS50	01D0737-006	04/12/2001	REAL	ALUMINUM	1070.00	UG/L	TR1		3.20	V1
GS50	01D0737-006	04/12/2001	REAL	ANTIMONY	1.20	UG/L	TR1	B	0.48	V1
GS50	01D0737-006	04/12/2001	REAL	ARSENIC	1.20	UG/L	TR1	B	0.58	J1
GS50	01D0737-006	04/12/2001	REAL	BARIUM	67.80	UG/L	TR1	B	0.05	V1
GS50	01D0737-006	04/12/2001	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.05	UJ1
GS50	01D0737-006	04/12/2001	REAL	CADMIUM	0.17	UG/L	TR1	B	0.08	V1
GS50	01D0737-006	04/12/2001	REAL	CALCIUM	38100.00	UG/L	TR1		2.00	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS50	01D0737-006	04/12/2001	REAL	CHROMIUM	1.50	UG/L	TR1	B	0.22	V1
GS50	01D0737-006	04/12/2001	REAL	COBALT	0.20	UG/L	TR1	U	0.20	V1
GS50	01D0737-006	04/12/2001	REAL	COPPER	4.40	UG/L	TR1		0.18	V1
GS50	01D0737-006	04/12/2001	REAL	IRON	702.00	UG/L	TR1		3.90	V1
GS50	01D0737-006	04/12/2001	REAL	LEAD	16.90	UG/L	TR1		0.65	J1
GS50	01D0737-006	04/12/2001	REAL	LITHIUM	6.08	UG/L	TR1	B	0.05	J1
GS50	01D0737-006	04/12/2001	REAL	MAGNESIUM	3660.00	UG/L	TR1	B	2.20	V1
GS50	01D0737-006	04/12/2001	REAL	MANGANESE	10.40	UG/L	TR1	B	0.02	V1
GS50	01D0737-006	04/12/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS50	01D0737-006	04/12/2001	REAL	MOLYBDENUM	0.59	UG/L	TR1	B	0.25	V1
GS50	01D0737-006	04/12/2001	REAL	NICKEL	1.30	UG/L	TR1	B	0.30	V1
GS50	01D0737-006	04/12/2001	REAL	POTASSIUM	4950.00	UG/L	TR1	B	542.00	V1
GS50	01D0737-006	04/12/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	V1
GS50	01D0737-006	04/12/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS50	01D0737-006	04/12/2001	REAL	SODIUM	192000.00	UG/L	TR1		24.20	V1
GS50	01D0737-006	04/12/2001	REAL	STRONTIUM	134.00	UG/L	TR1	B	0.02	V1
GS50	01D0737-006	04/12/2001	REAL	THALLIUM	1.50	UG/L	TR1	B	0.98	UJ1
GS50	01D0737-006	04/12/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS50	01D0737-006	04/12/2001	REAL	VANADIUM	2.50	UG/L	TR1	B	0.18	V1
GS50	01D0737-006	04/12/2001	REAL	ZINC	22.70	UG/L	TR1		0.08	V1
GS50	01D0790-012	04/23/2001	REAL	ALUMINUM	3140.00	UG/L	TR1		3.20	V1
GS50	01D0790-012	04/23/2001	REAL	ANTIMONY	1.40	UG/L	TR1	B	0.48	V1
GS50	01D0790-012	04/23/2001	REAL	ARSENIC	2.00	UG/L	TR1	B	0.58	V1
GS50	01D0790-012	04/23/2001	REAL	BARIUM	35.50	UG/L	TR1	B	0.05	V1
GS50	01D0790-012	04/23/2001	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.05	V1
GS50	01D0790-012	04/23/2001	REAL	CADMIUM	0.18	UG/L	TR1	B	0.08	V1
GS50	01D0790-012	04/23/2001	REAL	CALCIUM	13500.00	UG/L	TR1		2.00	V1
GS50	01D0790-012	04/23/2001	REAL	CHROMIUM	3.20	UG/L	TR1		0.22	V1
GS50	01D0790-012	04/23/2001	REAL	COBALT	0.56	UG/L	TR1	B	0.20	V1
GS50	01D0790-012	04/23/2001	REAL	COPPER	6.80	UG/L	TR1		0.18	V1
GS50	01D0790-012	04/23/2001	REAL	IRON	2320.00	UG/L	TR1		3.90	V1
GS50	01D0790-012	04/23/2001	REAL	LEAD	4.60	UG/L	TR1		0.65	V1
GS50	01D0790-012	04/23/2001	REAL	LITHIUM	3.20	UG/L	TR1	B	0.05	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS50	01D0790-012	04/23/2001	REAL	MAGNESIUM	1660.00	UG/L	TR1	B	2.20	V1
GS50	01D0790-012	04/23/2001	REAL	MANGANESE	26.30	UG/L	TR1		0.02	J1
GS50	01D0790-012	04/23/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS50	01D0790-012	04/23/2001	REAL	MOLYBDENUM	0.89	UG/L	TR1	B	0.25	V1
GS50	01D0790-012	04/23/2001	REAL	NICKEL	2.70	UG/L	TR1	B	0.30	V1
GS50	01D0790-012	04/23/2001	REAL	POTASSIUM	3950.00	UG/L	TR1	B	8.80	J1
GS50	01D0790-012	04/23/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	V1
GS50	01D0790-012	04/23/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS50	01D0790-012	04/23/2001	REAL	SODIUM	16200.00	UG/L	TR1		4.80	J1
GS50	01D0790-012	04/23/2001	REAL	STRONTIUM	47.50	UG/L	TR1	B	0.02	V1
GS50	01D0790-012	04/23/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS50	01D0790-012	04/23/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
GS50	01D0790-012	04/23/2001	REAL	VANADIUM	7.10	UG/L	TR1	B	0.18	V1
GS50	01D0790-012	04/23/2001	REAL	ZINC	27.70	UG/L	TR1		0.08	V1
GS50	01D1097-005	05/05/2001	REAL	ALUMINUM	8030.00	UG/L	TR1		3.20	V1
GS50	01D1097-006	05/05/2001	DUP	ALUMINUM	8020.00	UG/L	TR1		3.20	V1
GS50	01D1097-005	05/05/2001	REAL	ANTIMONY	1.70	UG/L	TR1	B	0.48	V1
GS50	01D1097-006	05/05/2001	DUP	ANTIMONY	1.60	UG/L	TR1	B	0.48	V1
GS50	01D1097-005	05/05/2001	REAL	ARSENIC	5.20	UG/L	TR1		0.58	V1
GS50	01D1097-006	05/05/2001	DUP	ARSENIC	4.40	UG/L	TR1	B	0.58	V1
GS50	01D1097-005	05/05/2001	REAL	BARIUM	76.80	UG/L	TR1	B	0.05	V1
GS50	01D1097-006	05/05/2001	DUP	BARIUM	77.40	UG/L	TR1	B	0.05	V1
GS50	01D1097-005	05/05/2001	REAL	BERYLLIUM	0.32	UG/L	TR1	B	0.05	V1
GS50	01D1097-006	05/05/2001	DUP	BERYLLIUM	0.30	UG/L	TR1	B	0.05	V1
GS50	01D1097-005	05/05/2001	REAL	CADMIUM	0.70	UG/L	TR1	B	0.08	V1
GS50	01D1097-006	05/05/2001	DUP	CADMIUM	0.74	UG/L	TR1	B	0.08	V1
GS50	01D1097-005	05/05/2001	REAL	CALCIUM	16800.00	UG/L	TR1		2.00	V1
GS50	01D1097-006	05/05/2001	DUP	CALCIUM	16700.00	UG/L	TR1		2.00	V1
GS50	01D1097-005	05/05/2001	REAL	CHROMIUM	8.40	UG/L	TR1		0.22	V1
GS50	01D1097-006	05/05/2001	DUP	CHROMIUM	8.30	UG/L	TR1		0.22	V1
GS50	01D1097-005	05/05/2001	REAL	COBALT	2.30	UG/L	TR1	B	0.20	V1
GS50	01D1097-006	05/05/2001	DUP	COBALT	2.20	UG/L	TR1	B	0.20	V1
GS50	01D1097-005	05/05/2001	REAL	COPPER	17.80	UG/L	TR1		0.18	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS50	01D1097-006	05/05/2001	DUP	COPPER	17.20	UG/L	TR1		0.18	V1
GS50	01D1097-005	05/05/2001	REAL	IRON	6670.00	UG/L	TR1		3.90	V1
GS50	01D1097-006	05/05/2001	DUP	IRON	6460.00	UG/L	TR1		3.90	V1
GS50	01D1097-005	05/05/2001	REAL	LEAD	17.20	UG/L	TR1		0.65	V1
GS50	01D1097-006	05/05/2001	DUP	LEAD	16.70	UG/L	TR1		0.65	V1
GS50	01D1097-005	05/05/2001	REAL	LITHIUM	7.00	UG/L	TR1	B	0.05	J1
GS50	01D1097-006	05/05/2001	DUP	LITHIUM	6.90	UG/L	TR1	B	0.05	J1
GS50	01D1097-005	05/05/2001	REAL	MAGNESIUM	2500.00	UG/L	TR1	B	2.20	V1
GS50	01D1097-006	05/05/2001	DUP	MAGNESIUM	2450.00	UG/L	TR1	B	2.20	V1
GS50	01D1097-005	05/05/2001	REAL	MANGANESE	107.00	UG/L	TR1		0.02	V1
GS50	01D1097-006	05/05/2001	DUP	MANGANESE	105.00	UG/L	TR1		0.02	V1
GS50	01D1097-005	05/05/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS50	01D1097-006	05/05/2001	DUP	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS50	01D1097-005	05/05/2001	REAL	MOLYBDENUM	0.77	UG/L	TR1	B	0.25	V1
GS50	01D1097-006	05/05/2001	DUP	MOLYBDENUM	0.94	UG/L	TR1	B	0.25	V1
GS50	01D1097-005	05/05/2001	REAL	NICKEL	6.70	UG/L	TR1	B	0.30	V1
GS50	01D1097-006	05/05/2001	DUP	NICKEL	6.60	UG/L	TR1	B	0.30	V1
GS50	01D1097-005	05/05/2001	REAL	POTASSIUM	7360.00	UG/L	TR1		8.80	J1
GS50	01D1097-006	05/05/2001	DUP	POTASSIUM	7250.00	UG/L	TR1		8.80	J1
GS50	01D1097-005	05/05/2001	REAL	SELENIUM	0.86	UG/L	TR1	B	0.65	J1
GS50	01D1097-006	05/05/2001	DUP	SELENIUM	1.40	UG/L	TR1	B	0.65	J1
GS50	01D1097-005	05/05/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS50	01D1097-006	05/05/2001	DUP	SILVER	0.35	UG/L	TR1	B	0.25	V1
GS50	01D1097-005	05/05/2001	REAL	SODIUM	5920.00	UG/L	TR1		24.20	V1
GS50	01D1097-006	05/05/2001	DUP	SODIUM	5870.00	UG/L	TR1		24.20	V1
GS50	01D1097-005	05/05/2001	REAL	STRONTIUM	61.30	UG/L	TR1	B	0.02	V1
GS50	01D1097-006	05/05/2001	DUP	STRONTIUM	60.70	UG/L	TR1	B	0.02	V1
GS50	01D1097-005	05/05/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS50	01D1097-006	05/05/2001	DUP	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
GS50	01D1097-005	05/05/2001	REAL	TIN	1.40	UG/L	TR1	B	0.88	V1
GS50	01D1097-006	05/05/2001	DUP	TIN	0.88	UG/L	TR1	U	0.88	V1
GS50	01D1097-005	05/05/2001	REAL	VANADIUM	19.50	UG/L	TR1	B	0.18	V1
GS50	01D1097-006	05/05/2001	DUP	VANADIUM	19.40	UG/L	TR1	B	0.18	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS50	01D1097-005	05/05/2001	REAL	ZINC	90.40	UG/L	TR1		0.08	V1
GS50	01D1097-006	05/05/2001	DUP	ZINC	88.80	UG/L	TR1		0.08	V1
SW022	01D0189-003	10/22/2000	REAL	LEAD	0.52	UG/L	TR1	U	0.52	R1
SW022	01D0189-003	10/22/2000	REAL	TOTAL SUSPENDED SOLIDS	6.0	MG/L	TR1		5.0	1
SW022	01D0692-003	04/12/2001	REAL	TOTAL SUSPENDED SOLIDS	82.0	MG/L	TR1		5.0	V1
SW022	01D0737-003	04/21/2001	REAL	TOTAL SUSPENDED SOLIDS	66.0	MG/L	TR1		5.0	V
SW022	01D0790-013	05/04/2001	REAL	TOTAL SUSPENDED SOLIDS	55.0	MG/L	TR1		5.0	V1
SW022	01D0790-021	05/04/2001	DUP	TOTAL SUSPENDED SOLIDS	43.0	MG/L	TR1		5.0	V1
SW022	01D1083-008	07/11/2001	REAL	TOTAL SUSPENDED SOLIDS	410.0	MG/L	TR1		5.0	V1
SW027	01D0684-010	03/14/2001	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.05	UJ1
SW027	01D0684-010	03/14/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW027	01D0684-010	03/14/2001	REAL	CHROMIUM	0.95	UG/L	TR1	B	0.22	V1
SW027	01D0684-010	03/14/2001	REAL	HARDNESS, TOTAL	340.0	MG/L	TR1		1.0	V1
SW027	01D0684-010	03/14/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
SW027	01D0692-007	04/12/2001	REAL	BERYLLIUM	0.29	UG/L	TR1	B	0.05	UJ1
SW027	01D0692-007	04/12/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW027	01D0692-007	04/12/2001	REAL	CHROMIUM	1.50	UG/L	TR1	B	0.22	V1
SW027	01D0692-007	04/12/2001	REAL	HARDNESS, TOTAL	160.0	MG/L	TR1		1.0	V1
SW027	01D0692-007	04/12/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
SW027	01D0692-007	04/12/2001	REAL	TOTAL SUSPENDED SOLIDS	12.0	MG/L	TR1		5.0	V1
SW027	01D0737-004	04/16/2001	REAL	BERYLLIUM	0.41	UG/L	TR1	B	0.05	UJ1
SW027	01D0737-004	04/16/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW027	01D0737-004	04/16/2001	REAL	CHROMIUM	1.40	UG/L	TR1	B	0.22	V1
SW027	01D0737-004	04/16/2001	REAL	HARDNESS, TOTAL	140.0	MG/L	TR1		1.0	V
SW027	01D0737-004	04/16/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
SW027	01D0764-002	04/23/2001	REAL	BERYLLIUM	0.69	UG/L	TR1	B	0.05	UJ1
SW027	01D0764-002	04/23/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW027	01D0764-002	04/23/2001	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.22	V1
SW027	01D0764-002	04/23/2001	REAL	HARDNESS, TOTAL	190.0	MG/L	TR1		1.0	V1
SW027	01D0764-002	04/23/2001	REAL	SILVER_D	0.25	UG/L	TR1	U	0.25	V1
SW027	01D0790-015	05/01/2001	REAL	BERYLLIUM	0.13	UG/L	TR1	B	0.05	V1
SW027	01D0790-015	05/01/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	J1
SW027	01D0790-015	05/01/2001	REAL	CHROMIUM	1.70	UG/L	TR1	B	0.22	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW027	01D0790-015	05/01/2001	REAL	HARDNESS, TOTAL	140.0	MG/L	TR1		1.0	V1
SW027	01D0790-015	05/01/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW027	01D0790-015	05/01/2001	REAL	TOTAL SUSPENDED SOLIDS	14.0	MG/L	TR1		5.0	V1
SW027	01D0790-014	05/05/2001	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.05	V1
SW027	01D1133-001	05/05/2001	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.05	UJ1
SW027	01D0790-014	05/05/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	J1
SW027	01D1133-001	05/05/2001	REAL	CADMIUM D	0.16	UG/L	TR1	B	0.08	V1
SW027	01D0790-014	05/05/2001	REAL	CHROMIUM	2.60	UG/L	TR1		0.22	V1
SW027	01D1133-001	05/05/2001	REAL	CHROMIUM	1.70	UG/L	TR1	B	0.22	V1
SW027	01D0790-014	05/05/2001	REAL	HARDNESS, TOTAL	80.0	MG/L	TR1		1.0	V1
SW027	01D1133-001	05/05/2001	REAL	HARDNESS, TOTAL	90.3	MG/L	TR1		2.0	V1
SW027	01D0790-014	05/05/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW027	01D1133-001	05/05/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW027	01D0790-014	05/05/2001	REAL	TOTAL SUSPENDED SOLIDS	27.0	MG/L	TR1		5.0	V1
SW027	01D1387-010	08/09/2001	REAL	BERYLLIUM	0.40	UG/L	TR1	B	0.20	V1
SW027	01D1387-010	08/09/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW027	01D1387-010	08/09/2001	REAL	CHROMIUM	5.60	UG/L	TR1	B	1.40	V1
SW027	01D1387-010	08/09/2001	REAL	HARDNESS, TOTAL	73.0	MG/L	TR1		1.2	V1
SW027	01D1387-010	08/09/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	J1
SW091	01D0776-011	05/05/2001	REAL	TOTAL SUSPENDED SOLIDS	70.0	MG/L	TR1		5.0	V1
SW091	01D1083-009	07/13/2001	REAL	TOTAL SUSPENDED SOLIDS	180.0	MG/L	TR1		5.0	V1
SW093	01D0184-002	10/02/2000	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	V
SW093	01D0184-002	10/02/2000	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V
SW093	01D0184-002	10/02/2000	REAL	CHROMIUM	0.96	UG/L	TR1	B	0.22	V
SW093	01D0184-002	10/02/2000	REAL	HARDNESS, TOTAL	280.0	MG/L	TR1		1.0	V1
SW093	01D0184-003	10/02/2000	REAL	SILVER D	0.28	UG/L	TR1	U	0.28	V
SW093	01D0199-003	10/18/2000	REAL	BERYLLIUM	0.18	UG/L	TR1	B	0.02	V1
SW093	01D0199-003	10/18/2000	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D0199-003	10/18/2000	REAL	CHROMIUM	1.20	UG/L	TR1	B	0.15	UJ1
SW093	01D0199-003	10/18/2000	REAL	HARDNESS, TOTAL	260.0	MG/L	TR1		1.0	V1
SW093	01D0199-003	10/18/2000	REAL	SILVER D	0.28	UG/L	TR1	U	0.28	V1
SW093	01D0239-005	10/31/2000	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
SW093	01D0239-005	10/31/2000	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.07	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	01D0239-005	10/31/2000	REAL	CHROMIUM	0.45	UG/L	TR1	B	0.15	V1
SW093	01D0239-005	10/31/2000	REAL	HARDNESS, TOTAL	350.0	MG/L	TR1		1.0	V1
SW093	01D0239-005	10/31/2000	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
SW093	01D0274-003	11/17/2000	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	J1
SW093	01D0274-003	11/17/2000	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	J1
SW093	01D0274-003	11/17/2000	REAL	CHROMIUM	0.45	UG/L	TR1	B	0.15	V1
SW093	01D0274-003	11/17/2000	REAL	HARDNESS, TOTAL	340.0	MG/L	TR1		1.0	V1
SW093	01D0274-003	11/17/2000	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	J1
SW093	01D0305-003	12/04/2000	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	UJ1
SW093	01D0305-003	12/04/2000	REAL	CADMIUM_D	0.09	UG/L	TR1	B	0.08	UJ1
SW093	01D0305-003	12/04/2000	REAL	CHROMIUM	0.25	UG/L	TR1	B	0.15	V1
SW093	01D0305-003	12/04/2000	REAL	HARDNESS, TOTAL	520.0	MG/L	TR1		1.0	V1
SW093	01D0305-003	12/04/2000	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
SW093	01D0329-002	12/19/2000	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	V1
SW093	01D0329-002	12/19/2000	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D0329-002	12/19/2000	REAL	CHROMIUM	0.56	UG/L	TR1	B	0.15	V1
SW093	01D0329-002	12/19/2000	REAL	HARDNESS, TOTAL	310.0	MG/L	TR1		1.0	V1
SW093	01D0329-002	12/19/2000	REAL	SILVER_D	0.28	UG/L	TR1	U	0.22	V1
SW093	01D0362-002	01/08/2001	REAL	BERYLLIUM	0.02	UG/L	TR1	B	0.02	J1
SW093	01D0362-002	01/08/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D0362-002	01/08/2001	REAL	CHROMIUM	0.75	UG/L	TR1	B	0.15	UJ1
SW093	01D0362-002	01/08/2001	REAL	HARDNESS, TOTAL	340.0	MG/L	TR1		1.0	V
SW093	01D0362-002	01/08/2001	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
SW093	01D0518-002	02/01/2001	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	V1
SW093	01D0518-002	02/01/2001	REAL	CADMIUM_D	0.12	UG/L	TR1	B	0.08	V1
SW093	01D0518-002	02/01/2001	REAL	CHROMIUM	0.92	UG/L	TR1	B	0.18	V1
SW093	01D0518-002	02/01/2001	REAL	HARDNESS, TOTAL	370.0	MG/L	TR1		1.0	V1
SW093	01D0518-002	02/01/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
SW093	01D0535-003	02/19/2001	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	V1
SW093	01D0535-003	02/19/2001	REAL	CADMIUM_D	0.12	UG/L	TR1	B	0.08	V1
SW093	01D0535-003	02/19/2001	REAL	CHROMIUM	0.31	UG/L	TR1	B	0.18	V1
SW093	01D0535-003	02/19/2001	REAL	HARDNESS, TOTAL	380.0	MG/L	TR1		1.0	V1
SW093	01D0535-003	02/19/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	01D0548-006	02/28/2001	REAL	BERYLLIUM	0.18	UG/L	TR1	B	0.02	J1
SW093	01D0548-006	02/28/2001	REAL	CADMIUM D	0.24	UG/L	TR1	B	0.08	J1
SW093	01D0548-006	02/28/2001	REAL	CHROMIUM	5.70	UG/L	TR1		0.18	V1
SW093	01D0548-006	02/28/2001	REAL	HARDNESS, TOTAL	350.0	MG/L	TR1		1.0	V
SW093	01D0548-006	02/28/2001	REAL	SILVER D	0.15	UG/L	TR1	U	0.15	V1
SW093	01D0620-001	03/12/2001	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
SW093	01D0620-001	03/12/2001	REAL	CADMIUM D	0.30	UG/L	TR1	B	0.08	J1
SW093	01D0620-001	03/12/2001	REAL	CHROMIUM	1.60	UG/L	TR1	B	0.18	V1
SW093	01D0620-001	03/12/2001	REAL	HARDNESS, TOTAL	380.0	MG/L	TR1		1.0	V1
SW093	01D0620-001	03/12/2001	REAL	SILVER D	0.19	UG/L	TR1	B	0.15	V1
SW093	01D0646-003	03/20/2001	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.08	V1
SW093	01D0646-003	03/20/2001	REAL	CADMIUM D	0.10	UG/L	TR1	B	0.08	V1
SW093	01D0646-003	03/20/2001	REAL	CHROMIUM	2.20	UG/L	TR1		0.18	V1
SW093	01D0646-003	03/20/2001	REAL	HARDNESS, TOTAL	380.0	MG/L	TR1		1.0	V1
SW093	01D0646-003	03/20/2001	REAL	SILVER D	0.15	UG/L	TR1	U	0.15	V1
SW093	01D0664-001	03/27/2001	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.03	UJ1
SW093	01D0664-001	03/27/2001	REAL	CADMIUM D	0.14	UG/L	TR1	B	0.08	J1
SW093	01D0664-001	03/27/2001	REAL	CHROMIUM	2.50	UG/L	TR1		0.18	V1
SW093	01D0664-001	03/27/2001	REAL	HARDNESS, TOTAL	380.0	MG/L	TR1		1.0	V1
SW093	01D0664-001	03/27/2001	REAL	SILVER D	0.15	UG/L	TR1	U	0.15	V1
SW093	01D0692-006	04/02/2001	REAL	BERYLLIUM	0.48	UG/L	TR1	B	0.05	UJ1
SW093	01D0692-006	04/02/2001	REAL	CADMIUM D	0.11	UG/L	TR1	B	0.08	V1
SW093	01D0692-006	04/02/2001	REAL	CHROMIUM	5.50	UG/L	TR1		0.22	V1
SW093	01D0692-006	04/02/2001	REAL	HARDNESS, TOTAL	280.0	MG/L	TR1		1.0	V1
SW093	01D0692-006	04/02/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0704-005	04/12/2001	REAL	BERYLLIUM	0.31	UG/L	TR1	B	0.05	UJ1
SW093	01D0704-005	04/12/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D0704-005	04/12/2001	REAL	CHROMIUM	2.30	UG/L	TR1		0.22	V1
SW093	01D0704-005	04/12/2001	REAL	HARDNESS, TOTAL	290.0	MG/L	TR1		1.0	V
SW093	01D0704-005	04/12/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0737-008	04/20/2001	REAL	BERYLLIUM	0.82	UG/L	TR1	B	0.05	UJ1
SW093	01D0737-008	04/20/2001	REAL	CADMIUM D	0.17	UG/L	TR1	B	0.08	UJ1
SW093	01D0737-008	04/20/2001	REAL	CHROMIUM	4.70	UG/L	TR1		0.22	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	01D0737-008	04/20/2001	REAL	HARDNESS, TOTAL	200.0	MG/L	TR1		1.0	V
SW093	01D0737-008	04/20/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0737-008	04/20/2001	REAL	TOTAL SUSPENDED SOLIDS	70.0	MG/L	TR1		5.0	V
SW093	01D0776-005	04/24/2001	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.05	V
SW093	01D0776-005	04/24/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V
SW093	01D0776-005	04/24/2001	REAL	CHROMIUM	1.20	UG/L	TR1	B	0.22	V
SW093	01D0776-005	04/24/2001	REAL	HARDNESS, TOTAL	300.0	MG/L	TR1		1.0	V1
SW093	01D0776-005	04/24/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V
SW093	01D0790-017	05/02/2001	REAL	BERYLLIUM	0.37	UG/L	TR1	B	0.05	V1
SW093	01D0790-017	05/02/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	J1
SW093	01D0790-017	05/02/2001	REAL	CHROMIUM	6.50	UG/L	TR1		0.22	V1
SW093	01D0790-017	05/02/2001	REAL	HARDNESS, TOTAL	140.0	MG/L	TR1		1.0	V1
SW093	01D0790-017	05/02/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0790-017	05/02/2001	REAL	TOTAL SUSPENDED SOLIDS	83.0	MG/L	TR1		5.0	V1
SW093	01D0790-016	05/05/2001	REAL	BERYLLIUM	0.18	UG/L	TR1	B	0.05	V1
SW093	01D0811-003	05/05/2001	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.05	UJ1
SW093	01D0790-016	05/05/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	J1
SW093	01D0811-003	05/05/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D0790-016	05/05/2001	REAL	CHROMIUM	6.30	UG/L	TR1		0.22	V1
SW093	01D0811-003	05/05/2001	REAL	CHROMIUM	1.60	UG/L	TR1	B	0.22	UJ1
SW093	01D0790-016	05/05/2001	REAL	HARDNESS, TOTAL	84.0	MG/L	TR1		1.0	V1
SW093	01D0811-003	05/05/2001	REAL	HARDNESS, TOTAL	260.0	MG/L	TR1		1.0	V1
SW093	01D0790-016	05/05/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0811-003	05/05/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0790-016	05/05/2001	REAL	TOTAL SUSPENDED SOLIDS	110.0	MG/L	TR1		5.0	V1
SW093	01D0868-003	05/14/2001	REAL	BERYLLIUM	0.25	UG/L	TR1	B	0.05	UJ1
SW093	01D0868-003	05/14/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D0868-003	05/14/2001	REAL	CHROMIUM	5.70	UG/L	TR1		0.22	V1
SW093	01D0868-003	05/14/2001	REAL	HARDNESS, TOTAL	250.0	MG/L	TR1		1.0	V1
SW093	01D0868-003	05/14/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0905-002	05/21/2001	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.05	V1
SW093	01D0905-002	05/21/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D0905-002	05/21/2001	REAL	CHROMIUM	1.60	UG/L	TR1	B	0.22	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	01D0905-002	05/21/2001	REAL	HARDNESS, TOTAL	210.0	MG/L	TR1		1.0	V1
SW093	01D0905-002	05/21/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D0931-002	06/01/2001	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.05	V
SW093	01D0931-002	06/01/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V
SW093	01D0931-002	06/01/2001	REAL	CHROMIUM	1.80	UG/L	TR1	B	0.22	V
SW093	01D0931-002	06/01/2001	REAL	HARDNESS, TOTAL	170.0	MG/L	TR1		1.0	V1
SW093	01D0931-002	06/01/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V
SW093	01D0931-002	06/01/2001	REAL	TOTAL SUSPENDED SOLIDS	14.0	MG/L	TR1		5.0	V1
SW093	01D0962-004	06/07/2001	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.05	V1
SW093	01D0962-004	06/07/2001	REAL	CADMIUM D	0.11	UG/L	TR1	B	0.08	UJ1
SW093	01D0962-004	06/07/2001	REAL	CHROMIUM	2.70	UG/L	TR1		0.22	V1
SW093	01D0962-004	06/07/2001	REAL	HARDNESS, TOTAL	220.0	MG/L	TR1		1.0	V1
SW093	01D0962-004	06/07/2001	REAL	SILVER D	0.30	UG/L	TR1	B	0.25	UJ1
SW093	01D1000-001	06/15/2001	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.05	UJ1
SW093	01D1000-001	06/15/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1000-001	06/15/2001	REAL	CHROMIUM	2.70	UG/L	TR1		0.22	V1
SW093	01D1000-001	06/15/2001	REAL	HARDNESS, TOTAL	160.0	MG/L	TR1		1.0	V1
SW093	01D1000-001	06/15/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D1022-003	06/25/2001	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.05	UJ1
SW093	01D1022-003	06/25/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1022-003	06/25/2001	REAL	CHROMIUM	1.60	UG/L	TR1	B	0.22	V1
SW093	01D1022-003	06/25/2001	REAL	HARDNESS, TOTAL	140.0	MG/L	TR1		1.0	V1
SW093	01D1022-003	06/25/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	R1
SW093	01D1027-003	07/02/2001	REAL	BERYLLIUM	0.23	UG/L	TR1	B	0.20	UJ1
SW093	01D1027-003	07/02/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1027-003	07/02/2001	REAL	CHROMIUM	2.80	UG/L	TR1		0.22	V1
SW093	01D1027-003	07/02/2001	REAL	HARDNESS, TOTAL	160.0	MG/L	TR1		1.0	V1
SW093	01D1027-003	07/02/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D1083-003	07/09/2001	REAL	BERYLLIUM	1.50	UG/L	TR1		0.05	V1
SW093	01D1083-003	07/09/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1083-003	07/09/2001	REAL	CHROMIUM	34.50	UG/L	TR1		0.22	V1
SW093	01D1083-003	07/09/2001	REAL	HARDNESS, TOTAL	130.0	MG/L	TR1		1.0	V1
SW093	01D1083-003	07/09/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1

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SW093	01D1133-002	07/15/2001	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.05	UJ1
SW093	01D1133-002	07/15/2001	REAL	CADMIUM D	0.09	UG/L	TR1	B	0.08	V1
SW093	01D1133-002	07/15/2001	REAL	CHROMIUM	0.60	UG/L	TR1	B	0.22	UJ1
SW093	01D1133-002	07/15/2001	REAL	HARDNESS, TOTAL	328.0	MG/L	TR1		2.0	V1
SW093	01D1133-002	07/15/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	V1
SW093	01D1181-002	07/23/2001	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.05	J1
SW093	01D1181-002	07/23/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	J1
SW093	01D1181-002	07/23/2001	REAL	CHROMIUM	2.30	UG/L	TR1	B	0.22	V1
SW093	01D1181-002	07/23/2001	REAL	SILVER D	0.25	UG/L	TR1	U	0.25	J1
SW093	01D1237-005	08/01/2001	REAL	BERYLLIUM	0.40	UG/L	TR1	B	0.05	V1
SW093	01D1237-005	08/01/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1237-005	08/01/2001	REAL	CHROMIUM	9.80	UG/L	TR1		0.35	V1
SW093	01D1237-005	08/01/2001	REAL	HARDNESS, TOTAL	174.0	MG/L	TR1		2.0	V1
SW093	01D1237-005	08/01/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	V1
SW093	01D1306-005	08/09/2001	REAL	BERYLLIUM	0.20	UG/L	TR1	B	0.05	
SW093	01D1306-005	08/09/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	
SW093	01D1306-005	08/09/2001	REAL	CHROMIUM	5.00	UG/L	TR1		0.35	
SW093	01D1306-005	08/09/2001	REAL	HARDNESS, TOTAL	184.0	MG/L	TR1		2.0	V1
SW093	01D1306-005	08/09/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	
SW093	01D1357-003	08/16/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	V1
SW093	01D1357-003	08/16/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1357-003	08/16/2001	REAL	CHROMIUM	0.52	UG/L	TR1	B	0.35	V1
SW093	01D1357-003	08/16/2001	REAL	HARDNESS, TOTAL	350.0	MG/L	TR1		2.0	V1
SW093	01D1357-003	08/16/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	V1
SW093	01D1387-004	08/27/2001	REAL	BERYLLIUM	0.68	UG/L	TR1	B	0.20	V1
SW093	01D1387-004	08/27/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1387-004	08/27/2001	REAL	CHROMIUM	10.70	UG/L	TR1		1.40	V1
SW093	01D1387-004	08/27/2001	REAL	HARDNESS, TOTAL	180.0	MG/L	TR1		2.0	V1
SW093	01D1387-004	08/27/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	J1
SW093	01D1389-002	09/08/2001	REAL	BERYLLIUM	0.15	UG/L	TR1	B	0.05	V1
SW093	01D1389-002	09/08/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	01D1389-002	09/08/2001	REAL	CHROMIUM	3.30	UG/L	TR1		0.35	V1
SW093	01D1389-002	09/08/2001	REAL	HARDNESS, TOTAL	280.0	MG/L	TR1		2.0	V1

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SW093	01D1389-002	09/08/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	J1
SW093	02D0002-001	09/20/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	J1
SW093	02D0002-001	09/20/2001	REAL	CADMIUM D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D0002-001	09/20/2001	REAL	CHROMIUM	2.90	UG/L	TR1		0.35	UJ1
SW093	02D0002-001	09/20/2001	REAL	SILVER D	0.12	UG/L	TR1	U	0.12	V1
SW119	01D0704-003	04/11/2001	REAL	ALUMINUM	2950.00	UG/L	TR1		3.20	V1
SW119	01D0704-003	04/11/2001	REAL	ANTIMONY	1.20	UG/L	TR1	B	0.48	V1
SW119	01D0704-003	04/11/2001	REAL	ARSENIC	1.20	UG/L	TR1	B	0.58	UJ1
SW119	01D0704-003	04/11/2001	REAL	BARIUM	126.00	UG/L	TR1		0.05	V1
SW119	01D0704-003	04/11/2001	REAL	BERYLLIUM	0.35	UG/L	TR1	B	0.05	UJ1
SW119	01D0704-003	04/11/2001	REAL	CADMIUM	0.32	UG/L	TR1	B	0.08	UJ1
SW119	01D0704-003	04/11/2001	REAL	CALCIUM	45500.00	UG/L	TR1		2.00	V1
SW119	01D0704-003	04/11/2001	REAL	CHROMIUM	3.10	UG/L	TR1		0.22	V1
SW119	01D0704-003	04/11/2001	REAL	COBALT	0.81	UG/L	TR1	B	0.20	V1
SW119	01D0704-003	04/11/2001	REAL	COPPER	7.80	UG/L	TR1		0.18	V1
SW119	01D0704-003	04/11/2001	REAL	IRON	1660.00	UG/L	TR1		3.90	V1
SW119	01D0704-003	04/11/2001	REAL	LEAD	1.40	UG/L	TR1	B	0.65	J1
SW119	01D0704-003	04/11/2001	REAL	LITHIUM	37.70	UG/L	TR1	B	0.05	J1
SW119	01D0704-003	04/11/2001	REAL	MAGNESIUM	9930.00	UG/L	TR1		2.20	V1
SW119	01D0704-003	04/11/2001	REAL	MANGANESE	38.70	UG/L	TR1		0.02	V1
SW119	01D0704-003	04/11/2001	REAL	MERCURY	0.75	UG/L	TR1		0.10	V1
SW119	01D0704-003	04/11/2001	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	UJ1
SW119	01D0704-003	04/11/2001	REAL	NICKEL	2.80	UG/L	TR1	B	0.30	V1
SW119	01D0704-003	04/11/2001	REAL	POTASSIUM	16900.00	UG/L	TR1		8.80	J1
SW119	01D0704-003	04/11/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	J1
SW119	01D0704-003	04/11/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW119	01D0704-003	04/11/2001	REAL	SODIUM	343000.00	UG/L	TR1		8.50	J1
SW119	01D0704-003	04/11/2001	REAL	STRONTIUM	344.00	UG/L	TR1		0.02	V1
SW119	01D0704-003	04/11/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	J1
SW119	01D0704-003	04/11/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
SW119	01D0704-003	04/11/2001	REAL	VANADIUM	5.50	UG/L	TR1	B	0.18	V1
SW119	01D0704-003	04/11/2001	REAL	ZINC	38.10	UG/L	TR1		0.08	V1
SW119	01D0753-001	04/21/2001	REAL	ALUMINUM	2700.00	UG/L	TR1		6.60	V

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SW119	01D0753-001	04/21/2001	REAL	ANTIMONY	1.30	UG/L	TR1	B	0.45	V
SW119	01D0753-001	04/21/2001	REAL	ARSENIC	1.30	UG/L	TR1	B	0.72	V
SW119	01D0753-001	04/21/2001	REAL	BARIUM	115.00	UG/L	TR1		0.05	V
SW119	01D0753-001	04/21/2001	REAL	BERYLLIUM	0.21	UG/L	TR1	B	0.02	V
SW119	01D0753-001	04/21/2001	REAL	CADMIUM	0.18	UG/L	TR1	B	0.08	V
SW119	01D0753-001	04/21/2001	REAL	CALCIUM	44900.00	UG/L	TR1		3.30	V
SW119	01D0753-001	04/21/2001	REAL	CHROMIUM	3.20	UG/L	TR1		0.15	V
SW119	01D0753-001	04/21/2001	REAL	COBALT	0.71	UG/L	TR1	B	0.20	V
SW119	01D0753-001	04/21/2001	REAL	COPPER	7.00	UG/L	TR1		0.20	V
SW119	01D0753-001	04/21/2001	REAL	IRON	1770.00	UG/L	TR1		3.60	V
SW119	01D0753-001	04/21/2001	REAL	LEAD	1.60	UG/L	TR1	B	0.58	V
SW119	01D0753-001	04/21/2001	REAL	LITHIUM	33.60	UG/L	TR1	B	0.02	J
SW119	01D0753-001	04/21/2001	REAL	MAGNESIUM	10700.00	UG/L	TR1		1.60	V
SW119	01D0753-001	04/21/2001	REAL	MANGANESE	23.30	UG/L	TR1		0.02	V
SW119	01D0753-001	04/21/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
SW119	01D0753-001	04/21/2001	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.32	V
SW119	01D0753-001	04/21/2001	REAL	NICKEL	3.30	UG/L	TR1	B	0.35	V
SW119	01D0753-001	04/21/2001	REAL	POTASSIUM	10500.00	UG/L	TR1		4.90	J
SW119	01D0753-001	04/21/2001	REAL	SELENIUM	1.20	UG/L	TR1	B	1.10	V
SW119	01D0753-001	04/21/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.22	V
SW119	01D0753-001	04/21/2001	REAL	SODIUM	235000.00	UG/L	TR1		6.60	J
SW119	01D0753-001	04/21/2001	REAL	STRONTIUM	342.00	UG/L	TR1		0.02	V
SW119	01D0753-001	04/21/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.92	V
SW119	01D0753-001	04/21/2001	REAL	TIN	0.88	UG/L	TR1	U	0.48	V
SW119	01D0753-001	04/21/2001	REAL	VANADIUM	6.00	UG/L	TR1	B	0.15	V
SW119	01D0753-001	04/21/2001	REAL	ZINC	69.30	UG/L	TR1		0.20	V
SW119	01D0790-018	05/02/2001	REAL	ALUMINUM	5250.00	UG/L	TR1		3.20	V1
SW119	01D0790-018	05/02/2001	REAL	ANTIMONY	1.40	UG/L	TR1	B	0.48	V1
SW119	01D0790-018	05/02/2001	REAL	ARSENIC	2.70	UG/L	TR1	B	0.58	V1
SW119	01D0790-018	05/02/2001	REAL	BARIUM	141.00	UG/L	TR1		0.05	V1
SW119	01D0790-018	05/02/2001	REAL	BERYLLIUM	0.27	UG/L	TR1	B	0.05	V1
SW119	01D0790-018	05/02/2001	REAL	CADMIUM	0.37	UG/L	TR1	B	0.08	V1
SW119	01D0790-018	05/02/2001	REAL	CALCIUM	27000.00	UG/L	TR1		2.00	V1

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SW119	01D0790-018	05/02/2001	REAL	CHROMIUM	5.70	UG/L	TR1		0.22	V1
SW119	01D0790-018	05/02/2001	REAL	COBALT	1.10	UG/L	TR1	B	0.20	V1
SW119	01D0790-018	05/02/2001	REAL	COPPER	8.00	UG/L	TR1		0.18	V1
SW119	01D0790-018	05/02/2001	REAL	IRON	3630.00	UG/L	TR1		3.90	V1
SW119	01D0790-018	05/02/2001	REAL	LEAD	8.80	UG/L	TR1		0.65	V1
SW119	01D0790-018	05/02/2001	REAL	LITHIUM	20.10	UG/L	TR1	B	0.05	J1
SW119	01D0790-018	05/02/2001	REAL	MAGNESIUM	7120.00	UG/L	TR1		2.20	V1
SW119	01D0790-018	05/02/2001	REAL	MANGANESE	31.60	UG/L	TR1		0.02	J1
SW119	01D0790-018	05/02/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW119	01D0790-018	05/02/2001	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	V1
SW119	01D0790-018	05/02/2001	REAL	NICKEL	4.40	UG/L	TR1	B	0.30	V1
SW119	01D0790-018	05/02/2001	REAL	POTASSIUM	6260.00	UG/L	TR1		8.80	J1
SW119	01D0790-018	05/02/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	V1
SW119	01D0790-018	05/02/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW119	01D0790-018	05/02/2001	REAL	SODIUM	73300.00	UG/L	TR1		24.20	J1
SW119	01D0790-018	05/02/2001	REAL	STRONTIUM	206.00	UG/L	TR1		0.02	V1
SW119	01D0790-018	05/02/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
SW119	01D0790-018	05/02/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
SW119	01D0790-018	05/02/2001	REAL	TOTAL SUSPENDED SOLIDS	53.0	MG/L	TR1		5.0	V1
SW119	01D0790-018	05/02/2001	REAL	VANADIUM	12.00	UG/L	TR1	B	0.18	V1
SW119	01D0790-018	05/02/2001	REAL	ZINC	34.30	UG/L	TR1		0.08	V1
SW119	01D1097-007	05/05/2001	REAL	ALUMINUM	6510.00	UG/L	TR1		3.20	V1
SW119	01D1097-008	05/05/2001	DUP	ALUMINUM	7710.00	UG/L	TR1		3.20	V1
SW119	01D1097-007	05/05/2001	REAL	ANTIMONY	1.30	UG/L	TR1	B	0.48	V1
SW119	01D1097-008	05/05/2001	DUP	ANTIMONY	1.50	UG/L	TR1	B	0.48	V1
SW119	01D1097-007	05/05/2001	REAL	ARSENIC	3.10	UG/L	TR1	B	0.58	V1
SW119	01D1097-008	05/05/2001	DUP	ARSENIC	3.00	UG/L	TR1	B	0.58	V1
SW119	01D1097-007	05/05/2001	REAL	BARIUM	88.00	UG/L	TR1	B	0.05	V1
SW119	01D1097-008	05/05/2001	DUP	BARIUM	91.00	UG/L	TR1	B	0.05	V1
SW119	01D1097-007	05/05/2001	REAL	BERYLLIUM	0.31	UG/L	TR1	B	0.05	V1
SW119	01D1097-008	05/05/2001	DUP	BERYLLIUM	0.34	UG/L	TR1	B	0.05	V1
SW119	01D1097-007	05/05/2001	REAL	CADMIUM	1.20	UG/L	TR1		0.08	V1
SW119	01D1097-008	05/05/2001	DUP	CADMIUM	1.20	UG/L	TR1		0.08	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW119	01D1097-007	05/05/2001	REAL	CALCIUM	23200.00	UG/L	TR1		2.00	V1
SW119	01D1097-008	05/05/2001	DUP	CALCIUM	22900.00	UG/L	TR1		2.00	V1
SW119	01D1097-007	05/05/2001	REAL	CHROMIUM	7.50	UG/L	TR1		0.22	V1
SW119	01D1097-008	05/05/2001	DUP	CHROMIUM	8.70	UG/L	TR1		0.22	V1
SW119	01D1097-007	05/05/2001	REAL	COBALT	2.00	UG/L	TR1	B	0.20	V1
SW119	01D1097-008	05/05/2001	DUP	COBALT	2.10	UG/L	TR1	B	0.20	V1
SW119	01D1097-007	05/05/2001	REAL	COPPER	10.70	UG/L	TR1		0.18	V1
SW119	01D1097-008	05/05/2001	DUP	COPPER	11.60	UG/L	TR1		0.18	V1
SW119	01D1097-007	05/05/2001	REAL	IRON	5040.00	UG/L	TR1		3.90	V1
SW119	01D1097-008	05/05/2001	DUP	IRON	5800.00	UG/L	TR1		3.90	V1
SW119	01D1097-007	05/05/2001	REAL	LEAD	6.20	UG/L	TR1		0.65	V1
SW119	01D1097-008	05/05/2001	DUP	LEAD	5.70	UG/L	TR1		0.65	V1
SW119	01D1097-007	05/05/2001	REAL	LITHIUM	20.90	UG/L	TR1	B	0.05	J1
SW119	01D1097-008	05/05/2001	DUP	LITHIUM	22.10	UG/L	TR1	B	0.05	J1
SW119	01D1097-007	05/05/2001	REAL	MAGNESIUM	6100.00	UG/L	TR1		2.20	V1
SW119	01D1097-008	05/05/2001	DUP	MAGNESIUM	6250.00	UG/L	TR1		2.20	V1
SW119	01D1097-007	05/05/2001	REAL	MANGANESE	75.10	UG/L	TR1		0.02	V1
SW119	01D1097-008	05/05/2001	DUP	MANGANESE	77.70	UG/L	TR1		0.02	V1
SW119	01D1097-007	05/05/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
SW119	01D1097-008	05/05/2001	DUP	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
SW119	01D1097-007	05/05/2001	REAL	MOLYBDENUM	0.69	UG/L	TR1	B	0.25	V1
SW119	01D1097-008	05/05/2001	DUP	MOLYBDENUM	0.98	UG/L	TR1	B	0.25	V1
SW119	01D1097-007	05/05/2001	REAL	NICKEL	6.10	UG/L	TR1	B	0.30	V1
SW119	01D1097-008	05/05/2001	DUP	NICKEL	6.70	UG/L	TR1	B	0.30	V1
SW119	01D1097-007	05/05/2001	REAL	POTASSIUM	8520.00	UG/L	TR1		8.80	J1
SW119	01D1097-008	05/05/2001	DUP	POTASSIUM	8780.00	UG/L	TR1		8.80	J1
SW119	01D1097-007	05/05/2001	REAL	SELENIUM	2.30	UG/L	TR1	B	0.65	J1
SW119	01D1097-008	05/05/2001	DUP	SELENIUM	0.91	UG/L	TR1	B	0.65	J1
SW119	01D1097-007	05/05/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW119	01D1097-008	05/05/2001	DUP	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW119	01D1097-007	05/05/2001	REAL	SODIUM	65300.00	UG/L	TR1		24.20	V1
SW119	01D1097-008	05/05/2001	DUP	SODIUM	64200.00	UG/L	TR1		24.20	V1
SW119	01D1097-007	05/05/2001	REAL	STRONTIUM	170.00	UG/L	TR1	B	0.02	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW119	01D1097-008	05/05/2001	DUP	STRONTIUM	171.00	UG/L	TR1	B	0.02	V1
SW119	01D1097-007	05/05/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
SW119	01D1097-008	05/05/2001	DUP	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
SW119	01D1097-007	05/05/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
SW119	01D1097-008	05/05/2001	DUP	TIN	0.88	UG/L	TR1	U	0.88	V1
SW119	01D1097-007	05/05/2001	REAL	VANADIUM	15.60	UG/L	TR1	B	0.18	V1
SW119	01D1097-008	05/05/2001	DUP	VANADIUM	18.00	UG/L	TR1	B	0.18	V1
SW119	01D1097-007	05/05/2001	REAL	ZINC	79.80	UG/L	TR1		0.08	V1
SW119	01D1097-008	05/05/2001	DUP	ZINC	80.30	UG/L	TR1		0.08	V1
SW120	01D0507-001	10/05/2000	REAL	ALUMINUM	84.50	UG/L	TR1	*	15.00	J1
SW120	01D0507-001	10/05/2000	REAL	ANTIMONY	2.10	UG/L	TR1	B	3.00	V1
SW120	01D0507-001	10/05/2000	REAL	ARSENIC	0.75	UG/L	TR1	U	3.00	V1
SW120	01D0507-001	10/05/2000	REAL	BARIUM	186.00	UG/L	TR1	E	1.00	J1
SW120	01D0507-001	10/05/2000	REAL	BERYLLIUM	0.25	UG/L	TR1	U	1.00	V1
SW120	01D0507-001	10/05/2000	REAL	CADMIUM	0.33	UG/L	TR1	B	1.00	V1
SW120	01D0507-001	10/05/2000	REAL	CALCIUM	99100.00	UG/L	TR1	E	7.00	J1
SW120	01D0507-001	10/05/2000	REAL	CHROMIUM	0.42	UG/L	TR1	B	1.00	V1
SW120	01D0507-001	10/05/2000	REAL	COBALT	0.50	UG/L	TR1	U	2.00	V1
SW120	01D0507-001	10/05/2000	REAL	COPPER	8.50	UG/L	TR1		1.00	V1
SW120	01D0507-001	10/05/2000	REAL	IRON	103.00	UG/L	TR1		18.00	V1
SW120	01D0507-001	10/05/2000	REAL	LEAD	2.30	UG/L	TR1		2.00	UJ1
SW120	01D0507-001	10/05/2000	REAL	LITHIUM	54.50	UG/L	TR1	BN	1.00	J1
SW120	01D0507-001	10/05/2000	REAL	MAGNESIUM	23900.00	UG/L	TR1	E	73.00	J1
SW120	01D0507-001	10/05/2000	REAL	MANGANESE	44.80	UG/L	TR1	E	2.00	J1
SW120	01D0507-001	10/05/2000	REAL	MERCURY	0.15	UG/L	TR1		0.10	J1
SW120	01D0507-001	10/05/2000	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	2.00	V1
SW120	01D0507-001	10/05/2000	REAL	NICKEL	2.20	UG/L	TR1	B	2.00	V1
SW120	01D0507-001	10/05/2000	REAL	POTASSIUM	12700.00	UG/L	TR1	EN	43.00	J1
SW120	01D0507-001	10/05/2000	REAL	SELENIUM	1.20	UG/L	TR1	U	5.00	V1
SW120	01D0507-001	10/05/2000	REAL	SILVER	0.25	UG/L	TR1	U	1.00	V1
SW120	01D0507-001	10/05/2000	REAL	SODIUM	258000.00	UG/L	TR1	E	600.00	J1
SW120	01D0507-001	10/05/2000	REAL	STRONTIUM	659.00	UG/L	TR1	E	1.00	J1
SW120	01D0507-001	10/05/2000	REAL	THALLIUM	1.50	UG/L	TR1	U	6.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW120	01D0507-001	10/05/2000	REAL	TIN	1.60	UG/L	TR1	B	6.00	V1
SW120	01D0507-001	10/05/2000	REAL	VANADIUM	0.71	UG/L	TR1	B	1.00	V1
SW120	01D0507-001	10/05/2000	REAL	ZINC	12.50	UG/L	TR1	B	2.00	J1
SW120	01D0548-010	02/23/2001	REAL	ALUMINUM	63.70	UG/L	TR1		3.10	V1
SW120	01D0548-010	02/23/2001	REAL	ANTIMONY	0.88	UG/L	TR1	B	0.42	V1
SW120	01D0548-010	02/23/2001	REAL	ARSENIC	1.10	UG/L	TR1	B	0.80	V1
SW120	01D0548-010	02/23/2001	REAL	BARIUM	172.00	UG/L	TR1		0.05	V1
SW120	01D0548-010	02/23/2001	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.02	J1
SW120	01D0548-010	02/23/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW120	01D0548-010	02/23/2001	REAL	CALCIUM	108000.00	UG/L	TR1		31.20	V1
SW120	01D0548-010	02/23/2001	REAL	CHROMIUM	0.96	UG/L	TR1	B	0.18	V1
SW120	01D0548-010	02/23/2001	REAL	COBALT	0.39	UG/L	TR1	B	0.18	UJ1
SW120	01D0548-010	02/23/2001	REAL	COPPER	4.50	UG/L	TR1		0.15	V1
SW120	01D0548-010	02/23/2001	REAL	IRON	66.40	UG/L	TR1	B	4.40	V1
SW120	01D0548-010	02/23/2001	REAL	LEAD	0.55	UG/L	TR1	U	0.55	V1
SW120	01D0548-010	02/23/2001	REAL	LITHIUM	59.20	UG/L	TR1	B	0.05	J1
SW120	01D0548-010	02/23/2001	REAL	MAGNESIUM	27900.00	UG/L	TR1		1.50	V1
SW120	01D0548-010	02/23/2001	REAL	MANGANESE	3.30	UG/L	TR1	B	0.05	V1
SW120	01D0548-010	02/23/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW120	01D0548-010	02/23/2001	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	V1
SW120	01D0548-010	02/23/2001	REAL	NICKEL	2.20	UG/L	TR1	B	0.28	V1
SW120	01D0548-010	02/23/2001	REAL	POTASSIUM	13100.00	UG/L	TR1		611.00	V1
SW120	01D0548-010	02/23/2001	REAL	SELENIUM	0.78	UG/L	TR1	U	0.78	V1
SW120	01D0548-010	02/23/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
SW120	01D0548-010	02/23/2001	REAL	SODIUM	202000.00	UG/L	TR1		31.10	V1
SW120	01D0548-010	02/23/2001	REAL	STRONTIUM	766.00	UG/L	TR1		0.02	V1
SW120	01D0548-010	02/23/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	J1
SW120	01D0548-010	02/23/2001	REAL	TIN	0.58	UG/L	TR1	U	0.58	V1
SW120	01D0548-010	02/23/2001	REAL	VANADIUM	0.33	UG/L	TR1	B	0.15	V1
SW120	01D0548-010	02/23/2001	REAL	ZINC	12.80	UG/L	TR1	B	0.12	V1
SW120	01D0684-002	03/13/2001	REAL	ALUMINUM	129.00	UG/L	TR1		3.10	V1
SW120	01D0684-002	03/13/2001	REAL	ANTIMONY	1.40	UG/L	TR1	B	0.42	V1
SW120	01D0684-002	03/13/2001	REAL	ARSENIC	0.80	UG/L	TR1	U	0.80	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW120	01D0684-002	03/13/2001	REAL	BARIUM	249.00	UG/L	TR1		0.05	V1
SW120	01D0684-002	03/13/2001	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.03	UJ1
SW120	01D0684-002	03/13/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW120	01D0684-002	03/13/2001	REAL	CALCIUM	159000.00	UG/L	TR1		62.50	V1
SW120	01D0684-002	03/13/2001	REAL	CHROMIUM	0.47	UG/L	TR1	B	0.18	J1
SW120	01D0684-002	03/13/2001	REAL	COBALT	0.36	UG/L	TR1	B	0.18	V1
SW120	01D0684-002	03/13/2001	REAL	COPPER	2.90	UG/L	TR1	B	0.15	V1
SW120	01D0684-002	03/13/2001	REAL	IRON	102.00	UG/L	TR1		4.40	V1
SW120	01D0684-002	03/13/2001	REAL	LEAD	0.55	UG/L	TR1	U	0.55	V1
SW120	01D0684-002	03/13/2001	REAL	LITHIUM	63.00	UG/L	TR1	B	0.05	J1
SW120	01D0684-002	03/13/2001	REAL	MAGNESIUM	32100.00	UG/L	TR1		1.50	V1
SW120	01D0684-002	03/13/2001	REAL	MANGANESE	17.10	UG/L	TR1		0.05	V1
SW120	01D0684-002	03/13/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
SW120	01D0684-002	03/13/2001	REAL	MOLYBDENUM	0.88	UG/L	TR1	B	0.25	V1
SW120	01D0684-002	03/13/2001	REAL	NICKEL	2.60	UG/L	TR1	B	0.28	V1
SW120	01D0684-002	03/13/2001	REAL	POTASSIUM	18800.00	UG/L	TR1		5.20	J1
SW120	01D0684-002	03/13/2001	REAL	SELENIUM	0.89	UG/L	TR1	B	0.78	UJ1
SW120	01D0684-002	03/13/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
SW120	01D0684-002	03/13/2001	REAL	SODIUM	361000.00	UG/L	TR1		62.20	V1
SW120	01D0684-002	03/13/2001	REAL	STRONTIUM	922.00	UG/L	TR1		0.02	V1
SW120	01D0684-002	03/13/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	V1
SW120	01D0684-002	03/13/2001	REAL	TIN	0.58	UG/L	TR1	U	0.58	V1
SW120	01D0684-002	03/13/2001	REAL	VANADIUM	0.54	UG/L	TR1	B	0.15	UJ1
SW120	01D0684-002	03/13/2001	REAL	ZINC	20.40	UG/L	TR1		0.12	UJ1
SW120	01D0704-004	04/11/2001	REAL	ALUMINUM	1510.00	UG/L	TR1		3.20	V1
SW120	01D0704-004	04/11/2001	REAL	ANTIMONY	1.70	UG/L	TR1	B	0.48	V1
SW120	01D0704-004	04/11/2001	REAL	ARSENIC	1.80	UG/L	TR1	B	0.58	UJ1
SW120	01D0704-004	04/11/2001	REAL	BARIUM	98.50	UG/L	TR1	B	0.05	V1
SW120	01D0704-004	04/11/2001	REAL	BERYLLIUM	0.23	UG/L	TR1	B	0.05	UJ1
SW120	01D0704-004	04/11/2001	REAL	CADMIUM	0.12	UG/L	TR1	B	0.08	UJ1
SW120	01D0704-004	04/11/2001	REAL	CALCIUM	46400.00	UG/L	TR1		2.00	V1
SW120	01D0704-004	04/11/2001	REAL	CHROMIUM	1.90	UG/L	TR1	B	0.22	V1
SW120	01D0704-004	04/11/2001	REAL	COBALT	0.41	UG/L	TR1	B	0.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW120	01D0704-004	04/11/2001	REAL	COPPER	6.30	UG/L	TR1		0.18	V1
SW120	01D0704-004	04/11/2001	REAL	IRON	935.00	UG/L	TR1		3.90	V1
SW120	01D0704-004	04/11/2001	REAL	LEAD	1.00	UG/L	TR1	B	0.65	J1
SW120	01D0704-004	04/11/2001	REAL	LITHIUM	21.80	UG/L	TR1	B	0.05	J1
SW120	01D0704-004	04/11/2001	REAL	MAGNESIUM	9400.00	UG/L	TR1		2.20	V1
SW120	01D0704-004	04/11/2001	REAL	MANGANESE	38.30	UG/L	TR1		0.02	V1
SW120	01D0704-004	04/11/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW120	01D0704-004	04/11/2001	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	UJ1
SW120	01D0704-004	04/11/2001	REAL	NICKEL	2.00	UG/L	TR1	B	0.30	V1
SW120	01D0704-004	04/11/2001	REAL	POTASSIUM	12600.00	UG/L	TR1		8.80	J1
SW120	01D0704-004	04/11/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	J1
SW120	01D0704-004	04/11/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW120	01D0704-004	04/11/2001	REAL	SODIUM	138000.00	UG/L	TR1		2.60	J1
SW120	01D0704-004	04/11/2001	REAL	STRONTIUM	280.00	UG/L	TR1		0.02	V1
SW120	01D0704-004	04/11/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	J1
SW120	01D0704-004	04/11/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
SW120	01D0704-004	04/11/2001	REAL	VANADIUM	2.80	UG/L	TR1	B	0.18	V1
SW120	01D0704-004	04/11/2001	REAL	ZINC	32.30	UG/L	TR1		0.08	V1
SW120	01D0753-004	04/21/2001	REAL	ALUMINUM	2380.00	UG/L	TR1		6.60	V
SW120	01D0753-004	04/21/2001	REAL	ANTIMONY	1.40	UG/L	TR1	B	0.45	V
SW120	01D0753-004	04/21/2001	REAL	ARSENIC	1.50	UG/L	TR1	B	0.72	V
SW120	01D0753-004	04/21/2001	REAL	BARIUM	104.00	UG/L	TR1		0.05	V
SW120	01D0753-004	04/21/2001	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.02	V
SW120	01D0753-004	04/21/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V
SW120	01D0753-004	04/21/2001	REAL	CALCIUM	46800.00	UG/L	TR1		3.30	V
SW120	01D0753-004	04/21/2001	REAL	CHROMIUM	3.00	UG/L	TR1		0.15	V
SW120	01D0753-004	04/21/2001	REAL	COBALT	0.40	UG/L	TR1	B	0.20	V
SW120	01D0753-004	04/21/2001	REAL	COPPER	8.40	UG/L	TR1		0.20	V
SW120	01D0753-004	04/21/2001	REAL	IRON	1620.00	UG/L	TR1		3.60	V
SW120	01D0753-004	04/21/2001	REAL	LEAD	1.50	UG/L	TR1	B	0.58	V
SW120	01D0753-004	04/21/2001	REAL	LITHIUM	18.70	UG/L	TR1	B	0.02	J
SW120	01D0753-004	04/21/2001	REAL	MAGNESIUM	9230.00	UG/L	TR1		1.60	V
SW120	01D0753-004	04/21/2001	REAL	MANGANESE	29.40	UG/L	TR1		0.02	V

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SW120	01D0753-004	04/21/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
SW120	01D0753-004	04/21/2001	REAL	MOLYBDENUM	0.97	UG/L	TR1	B	0.32	V
SW120	01D0753-004	04/21/2001	REAL	NICKEL	2.60	UG/L	TR1	B	0.35	V
SW120	01D0753-004	04/21/2001	REAL	POTASSIUM	12100.00	UG/L	TR1		4.90	J
SW120	01D0753-004	04/21/2001	REAL	SELENIUM	0.83	UG/L	TR1	B	1.10	V
SW120	01D0753-004	04/21/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.22	V
SW120	01D0753-004	04/21/2001	REAL	SODIUM	187000.00	UG/L	TR1		6.60	J
SW120	01D0753-004	04/21/2001	REAL	STRONTIUM	279.00	UG/L	TR1		0.02	V
SW120	01D0753-004	04/21/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.92	V
SW120	01D0753-004	04/21/2001	REAL	TIN	0.88	UG/L	TR1	U	0.48	V
SW120	01D0753-004	04/21/2001	REAL	VANADIUM	4.90	UG/L	TR1	B	0.15	V
SW120	01D0753-004	04/21/2001	REAL	ZINC	53.00	UG/L	TR1		0.20	V
SW120	01D0790-019	05/02/2001	REAL	ALUMINUM	2300.00	UG/L	TR1		3.20	V1
SW120	01D0790-019	05/02/2001	REAL	ANTIMONY	1.40	UG/L	TR1	B	0.48	V1
SW120	01D0790-019	05/02/2001	REAL	ARSENIC	2.60	UG/L	TR1	B	0.58	V1
SW120	01D0790-019	05/02/2001	REAL	BARIUM	71.00	UG/L	TR1	B	0.05	V1
SW120	01D0790-019	05/02/2001	REAL	BERYLLIUM	0.13	UG/L	TR1	B	0.05	V1
SW120	01D0790-019	05/02/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW120	01D0790-019	05/02/2001	REAL	CALCIUM	33900.00	UG/L	TR1		2.00	V1
SW120	01D0790-019	05/02/2001	REAL	CHROMIUM	3.60	UG/L	TR1		0.22	V1
SW120	01D0790-019	05/02/2001	REAL	COBALT	0.55	UG/L	TR1	B	0.20	V1
SW120	01D0790-019	05/02/2001	REAL	COPPER	6.70	UG/L	TR1		0.18	V1
SW120	01D0790-019	05/02/2001	REAL	IRON	1700.00	UG/L	TR1		3.90	V1
SW120	01D0790-019	05/02/2001	REAL	LEAD	1.80	UG/L	TR1	B	0.65	V1
SW120	01D0790-019	05/02/2001	REAL	LITHIUM	12.30	UG/L	TR1	B	0.05	J1
SW120	01D0790-019	05/02/2001	REAL	MAGNESIUM	6710.00	UG/L	TR1		2.20	V1
SW120	01D0790-019	05/02/2001	REAL	MANGANESE	23.40	UG/L	TR1		0.02	J1
SW120	01D0790-019	05/02/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW120	01D0790-019	05/02/2001	REAL	MOLYBDENUM	1.00	UG/L	TR1	B	0.25	V1
SW120	01D0790-019	05/02/2001	REAL	NICKEL	3.70	UG/L	TR1	B	0.30	V1
SW120	01D0790-019	05/02/2001	REAL	POTASSIUM	8010.00	UG/L	TR1		8.80	J1
SW120	01D0790-019	05/02/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	V1
SW120	01D0790-019	05/02/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW120	01D0790-019	05/02/2001	REAL	SODIUM	97400.00	UG/L	TR1		24.20	J1
SW120	01D0790-019	05/02/2001	REAL	STRONTIUM	195.00	UG/L	TR1	B	0.02	V1
SW120	01D0790-019	05/02/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
SW120	01D0790-019	05/02/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
SW120	01D0790-019	05/02/2001	REAL	TOTAL SUSPENDED SOLIDS	23.0	MG/L	TR1		5.0	V1
SW120	01D0790-019	05/02/2001	REAL	VANADIUM	5.00	UG/L	TR1	B	0.18	V1
SW120	01D0790-019	05/02/2001	REAL	ZINC	53.30	UG/L	TR1		0.08	V1
SW120	01D1097-004	05/05/2001	REAL	ALUMINUM	9750.00	UG/L	TR1		3.20	V1
SW120	01D1097-004	05/05/2001	REAL	ANTIMONY	2.50	UG/L	TR1	B	0.48	V1
SW120	01D1097-004	05/05/2001	REAL	ARSENIC	5.80	UG/L	TR1		0.58	V1
SW120	01D1097-004	05/05/2001	REAL	BARIUM	106.00	UG/L	TR1		0.05	V1
SW120	01D1097-004	05/05/2001	REAL	BERYLLIUM	0.40	UG/L	TR1	B	0.05	V1
SW120	01D1097-004	05/05/2001	REAL	CADMIUM	0.34	UG/L	TR1	B	0.08	V1
SW120	01D1097-004	05/05/2001	REAL	CALCIUM	32100.00	UG/L	TR1		2.00	V1
SW120	01D1097-004	05/05/2001	REAL	CHROMIUM	10.60	UG/L	TR1		0.22	V1
SW120	01D1097-004	05/05/2001	REAL	COBALT	2.70	UG/L	TR1	B	0.20	V1
SW120	01D1097-004	05/05/2001	REAL	COPPER	17.80	UG/L	TR1		0.18	V1
SW120	01D1097-004	05/05/2001	REAL	IRON	8530.00	UG/L	TR1		3.90	V1
SW120	01D1097-004	05/05/2001	REAL	LEAD	8.70	UG/L	TR1		0.65	V1
SW120	01D1097-004	05/05/2001	REAL	LITHIUM	18.40	UG/L	TR1	B	0.05	J1
SW120	01D1097-004	05/05/2001	REAL	MAGNESIUM	7540.00	UG/L	TR1		2.20	V1
SW120	01D1097-004	05/05/2001	REAL	MANGANESE	151.00	UG/L	TR1		0.02	V1
SW120	01D1097-004	05/05/2001	REAL	MERCURY	5.50	UG/L	TR1		0.10	J1
SW120	01D1097-004	05/05/2001	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.25	V1
SW120	01D1097-004	05/05/2001	REAL	NICKEL	8.90	UG/L	TR1	B	0.30	V1
SW120	01D1097-004	05/05/2001	REAL	POTASSIUM	9100.00	UG/L	TR1		8.80	J1
SW120	01D1097-004	05/05/2001	REAL	SELENIUM	1.60	UG/L	TR1	B	0.65	J1
SW120	01D1097-004	05/05/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW120	01D1097-004	05/05/2001	REAL	SODIUM	51100.00	UG/L	TR1		24.20	V1
SW120	01D1097-004	05/05/2001	REAL	STRONTIUM	190.00	UG/L	TR1	B	0.02	V1
SW120	01D1097-004	05/05/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
SW120	01D1097-004	05/05/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
SW120	01D1097-004	05/05/2001	REAL	VANADIUM	23.40	UG/L	TR1	B	0.18	V1

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SW120	01D1097-004	05/05/2001	REAL	ZINC	112.00	UG/L	TR1		0.08	V1
SW120	01D1388-001	08/09/2001	REAL	ALUMINUM	3610.00	UG/L	TR1		4.00	V1
SW120	01D1388-001	08/09/2001	REAL	ANTIMONY	3.10	UG/L	TR1		0.58	V1
SW120	01D1388-001	08/09/2001	REAL	ARSENIC	4.40	UG/L	TR1	B	0.98	V1
SW120	01D1388-001	08/09/2001	REAL	BARIUM	56.70	UG/L	TR1	B	0.02	V1
SW120	01D1388-001	08/09/2001	REAL	BERYLLIUM	0.21	UG/L	TR1	B	0.05	J1
SW120	01D1388-001	08/09/2001	REAL	CADMIUM	0.14	UG/L	TR1	B	0.08	J1
SW120	01D1388-001	08/09/2001	REAL	CALCIUM	23500.00	UG/L	TR1		2.00	V1
SW120	01D1388-001	08/09/2001	REAL	CHROMIUM	5.10	UG/L	TR1		0.35	V1
SW120	01D1388-001	08/09/2001	REAL	COBALT	0.85	UG/L	TR1	B	0.22	V1
SW120	01D1388-001	08/09/2001	REAL	COPPER	9.70	UG/L	TR1		0.12	V1
SW120	01D1388-001	08/09/2001	REAL	IRON	2730.00	UG/L	TR1		3.90	V1
SW120	01D1388-001	08/09/2001	REAL	LEAD	3.40	UG/L	TR1		0.60	V1
SW120	01D1388-001	08/09/2001	REAL	LITHIUM	11.90	UG/L	TR1	B	0.02	V1
SW120	01D1388-001	08/09/2001	REAL	MAGNESIUM	4880.00	UG/L	TR1	B	2.00	V1
SW120	01D1388-001	08/09/2001	REAL	MANGANESE	58.10	UG/L	TR1		0.02	V1
SW120	01D1388-001	08/09/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
SW120	01D1388-001	08/09/2001	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.25	V1
SW120	01D1388-001	08/09/2001	REAL	NICKEL	4.00	UG/L	TR1	B	0.42	V1
SW120	01D1388-001	08/09/2001	REAL	POTASSIUM	7770.00	UG/L	TR1		2.70	V1
SW120	01D1388-001	08/09/2001	REAL	SELENIUM	1.30	UG/L	TR1	B	0.80	V1
SW120	01D1388-001	08/09/2001	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
SW120	01D1388-001	08/09/2001	REAL	SODIUM	43800.00	UG/L	TR1		181.00	V1
SW120	01D1388-001	08/09/2001	REAL	STRONTIUM	135.00	UG/L	TR1	B	0.02	V1
SW120	01D1388-001	08/09/2001	REAL	THALLIUM	0.85	UG/L	TR1	U	0.85	V1
SW120	01D1388-001	08/09/2001	REAL	TIN	0.98	UG/L	TR1	U	0.98	V1
SW120	01D1388-001	08/09/2001	REAL	VANADIUM	8.20	UG/L	TR1	B	0.12	V1
SW120	01D1388-001	08/09/2001	REAL	ZINC	73.30	UG/L	TR1		0.10	V1
SW134	01D0237-001	11/16/2000	REAL	Alkalinity, Total as CaCO3	90.0	MG/L	TR1		5.0	V1
SW134	01D0237-001	11/16/2000	REAL	ALUMINUM	1690.00	UG/L	TR1		5.70	J1
SW134	01D0237-001	11/16/2000	REAL	ANTIMONY	0.58	UG/L	TR1	U	0.58	V1
SW134	01D0237-001	11/16/2000	REAL	ARSENIC	2.00	UG/L	TR1	B	0.60	J1
SW134	01D0237-001	11/16/2000	REAL	BARIUM	35.70	UG/L	TR1	B	0.05	V1

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SW134	01D0237-001	11/16/2000	REAL	BERYLLIUM	0.04	UG/L	TR1	B	0.02	J1
SW134	01D0237-001	11/16/2000	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	J1
SW134	01D0237-001	11/16/2000	REAL	CALCIUM	14800.00	UG/L	TR1		4.80	V1
SW134	01D0237-001	11/16/2000	REAL	CHLORIDE	17.00	MG/L	TR1		0.50	V1
SW134	01D0237-001	11/16/2000	REAL	CHROMIUM	1.40	UG/L	TR1	B	0.15	J1
SW134	01D0237-001	11/16/2000	REAL	COBALT	0.39	UG/L	TR1	B	0.22	V1
SW134	01D0237-001	11/16/2000	REAL	COPPER	2.20	UG/L	TR1	B	0.22	V1
SW134	01D0237-001	11/16/2000	REAL	FLUORIDE	1.00	MG/L	TR1		0.05	V1
SW134	01D0237-001	11/16/2000	REAL	IRON	1160.00	UG/L	TR1		5.40	V1
SW134	01D0237-001	11/16/2000	REAL	LEAD	0.60	UG/L	TR1	B	0.52	V1
SW134	01D0237-001	11/16/2000	REAL	LITHIUM	1.40	UG/L	TR1	B	0.05	J1
SW134	01D0237-001	11/16/2000	REAL	MAGNESIUM	4240.00	UG/L	TR1	B	1.70	V1
SW134	01D0237-001	11/16/2000	REAL	MANGANESE	31.40	UG/L	TR1		0.05	V1
SW134	01D0237-001	11/16/2000	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
SW134	01D0237-001	11/16/2000	REAL	MOLYBDENUM	3.50	UG/L	TR1	B	0.25	V1
SW134	01D0237-001	11/16/2000	REAL	NICKEL	1.60	UG/L	TR1	B	0.22	V1
SW134	01D0237-001	11/16/2000	REAL	POTASSIUM	3110.00	UG/L	TR1	B	10.20	V1
SW134	01D0237-001	11/16/2000	REAL	Remainder	100	%	TR1		1	V1
SW134	01D0237-001	11/16/2000	REAL	SELENIUM	0.82	UG/L	TR1	U	0.82	V1
SW134	01D0237-001	11/16/2000	REAL	Sieve 1	1	%	TR1	U	1	V1
SW134	01D0237-001	11/16/2000	REAL	Sieve 2	1	%	TR1	U	1	V1
SW134	01D0237-001	11/16/2000	REAL	Sieve 3	1	%	TR1	U	1	V1
SW134	01D0237-001	11/16/2000	REAL	Sieve 4	1	%	TR1	U	1	V1
SW134	01D0237-001	11/16/2000	REAL	Sieve 5	1	%	TR1	U	1	V1
SW134	01D0237-001	11/16/2000	REAL	Sieve 6	1	%	TR1	U	1	V1
SW134	01D0237-001	11/16/2000	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
SW134	01D0237-001	11/16/2000	REAL	SODIUM	20300.00	UG/L	TR1		1.00	J1
SW134	01D0237-001	11/16/2000	REAL	STRONTIUM	143.00	UG/L	TR1	B	0.02	V1
SW134	01D0237-001	11/16/2000	REAL	SULFATE	15.0	MG/L	TR1		1.0	V1
SW134	01D0237-001	11/16/2000	REAL	THALLIUM	1.00	UG/L	TR1	U	1.00	V1
SW134	01D0237-001	11/16/2000	REAL	TIN	0.65	UG/L	TR1	U	0.65	V1
SW134	01D0237-001	11/16/2000	REAL	TOTAL DISSOLVED SOLIDS	150	MG/L	TR1		10	V1
SW134	01D0237-001	11/16/2000	REAL	TOTAL SUSPENDED SOLIDS	18.0	MG/L	TR1		5.0	V1

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SW134	01D0237-001	11/16/2000	REAL	VANADIUM	3.10	UG/L	TR1	B	0.20	UJ1
SW134	01D0237-001	11/16/2000	REAL	ZINC	4.90	UG/L	TR1	B	0.10	V1
SW134	01D0552-001	03/05/2001	REAL	Alkalinity, Total as CaCO3	84.0	MG/L	TR1		5.0	V1
SW134	01D0552-002	03/05/2001	DUP	Alkalinity, Total as CaCO3	88.0	MG/L	TR1		5.0	V1
SW134	01D0552-001	03/05/2001	REAL	ALUMINUM	3970.00	UG/L	TR1		3.10	V1
SW134	01D0552-002	03/05/2001	DUP	ALUMINUM	4370.00	UG/L	TR1		3.10	V1
SW134	01D0552-001	03/05/2001	REAL	ANTIMONY	0.42	UG/L	TR1	U	0.42	V1
SW134	01D0552-002	03/05/2001	DUP	ANTIMONY	0.42	UG/L	TR1	U	0.42	V1
SW134	01D0552-001	03/05/2001	REAL	ARSENIC	1.50	UG/L	TR1	B	0.80	V1
SW134	01D0552-002	03/05/2001	DUP	ARSENIC	1.10	UG/L	TR1	B	0.80	V1
SW134	01D0552-001	03/05/2001	REAL	BARIUM	85.80	UG/L	TR1	B	0.05	V1
SW134	01D0552-002	03/05/2001	DUP	BARIUM	82.40	UG/L	TR1	B	0.05	V1
SW134	01D0552-001	03/05/2001	REAL	BERYLLIUM	0.28	UG/L	TR1	B	0.02	V1
SW134	01D0552-002	03/05/2001	DUP	BERYLLIUM	0.28	UG/L	TR1	B	0.02	V1
SW134	01D0552-001	03/05/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW134	01D0552-002	03/05/2001	DUP	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW134	01D0552-001	03/05/2001	REAL	CALCIUM	24400.00	UG/L	TR1		2.80	V1
SW134	01D0552-002	03/05/2001	DUP	CALCIUM	23100.00	UG/L	TR1		2.80	V1
SW134	01D0552-001	03/05/2001	REAL	CHLORIDE	8.90	MG/L	TR1	N	0.50	V1
SW134	01D0552-002	03/05/2001	DUP	CHLORIDE	8.90	MG/L	TR1	N	0.50	V1
SW134	01D0552-001	03/05/2001	REAL	CHROMIUM	12.40	UG/L	TR1		0.18	V1
SW134	01D0552-002	03/05/2001	DUP	CHROMIUM	12.70	UG/L	TR1		0.18	V1
SW134	01D0552-001	03/05/2001	REAL	COBALT	1.40	UG/L	TR1	B	0.18	V1
SW134	01D0552-002	03/05/2001	DUP	COBALT	1.30	UG/L	TR1	B	0.18	V1
SW134	01D0552-001	03/05/2001	REAL	COPPER	4.70	UG/L	TR1		0.15	V1
SW134	01D0552-002	03/05/2001	DUP	COPPER	4.40	UG/L	TR1		0.15	V1
SW134	01D0552-001	03/05/2001	REAL	FLUORIDE	0.40	MG/L	TR1		0.05	V1
SW134	01D0552-002	03/05/2001	DUP	FLUORIDE	0.40	MG/L	TR1		0.05	V1
SW134	01D0552-001	03/05/2001	REAL	IRON	2810.00	UG/L	TR1		4.40	V1
SW134	01D0552-002	03/05/2001	DUP	IRON	2710.00	UG/L	TR1		4.40	V1
SW134	01D0552-001	03/05/2001	REAL	LEAD	2.60	UG/L	TR1		0.55	V1
SW134	01D0552-002	03/05/2001	DUP	LEAD	3.00	UG/L	TR1		0.55	V1
SW134	01D0552-001	03/05/2001	REAL	LITHIUM	5.80	UG/L	TR1	B	0.05	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW134	01D0552-002	03/05/2001	DUP	LITHIUM	5.80	UG/L	TR1	B	0.05	J1
SW134	01D0552-001	03/05/2001	REAL	MAGNESIUM	5410.00	UG/L	TR1		1.50	V1
SW134	01D0552-002	03/05/2001	DUP	MAGNESIUM	5150.00	UG/L	TR1		1.50	V1
SW134	01D0552-001	03/05/2001	REAL	MANGANESE	51.60	UG/L	TR1		0.05	V1
SW134	01D0552-002	03/05/2001	DUP	MANGANESE	44.60	UG/L	TR1		0.05	V1
SW134	01D0552-001	03/05/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW134	01D0552-002	03/05/2001	DUP	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW134	01D0552-001	03/05/2001	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	V1
SW134	01D0552-002	03/05/2001	DUP	MOLYBDENUM	1.20	UG/L	TR1	B	0.25	V1
SW134	01D0552-001	03/05/2001	REAL	NICKEL	7.90	UG/L	TR1	B	0.28	V1
SW134	01D0552-002	03/05/2001	DUP	NICKEL	7.70	UG/L	TR1	B	0.28	V1
SW134	01D0552-001	03/05/2001	REAL	POTASSIUM	1520.00	UG/L	TR1	B	5.20	J1
SW134	01D0552-002	03/05/2001	DUP	POTASSIUM	1510.00	UG/L	TR1	B	5.20	J1
SW134	01D0552-001	03/05/2001	REAL	Remainder	100	%	TR1		1	V1
SW134	01D0552-002	03/05/2001	DUP	Remainder	100	%	TR1	U	1	V1
SW134	01D0552-001	03/05/2001	REAL	SELENIUM	0.79	UG/L	TR1	B	0.78	V1
SW134	01D0552-002	03/05/2001	DUP	SELENIUM	0.78	UG/L	TR1	U	0.78	V1
SW134	01D0552-001	03/05/2001	REAL	Sieve 1	1	%	TR1	U	1	V1
SW134	01D0552-002	03/05/2001	DUP	Sieve 1	1	%	TR1	U	1	V1
SW134	01D0552-001	03/05/2001	REAL	Sieve 2	1	%	TR1	U	1	V1
SW134	01D0552-002	03/05/2001	DUP	Sieve 2	1	%	TR1	U	1	V1
SW134	01D0552-001	03/05/2001	REAL	Sieve 3	1	%	TR1	U	1	V1
SW134	01D0552-002	03/05/2001	DUP	Sieve 3	1	%	TR1	U	1	V1
SW134	01D0552-001	03/05/2001	REAL	Sieve 4	1	%	TR1	U	1	V1
SW134	01D0552-002	03/05/2001	DUP	Sieve 4	1	%	TR1	U	1	V1
SW134	01D0552-001	03/05/2001	REAL	Sieve 5	1	%	TR1	U	1	V1
SW134	01D0552-002	03/05/2001	DUP	Sieve 5	1	%	TR1	U	1	V1
SW134	01D0552-001	03/05/2001	REAL	Sieve 6	1	%	TR1	U	1	V1
SW134	01D0552-002	03/05/2001	DUP	Sieve 6	1	%	TR1	U	1	V1
SW134	01D0552-001	03/05/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
SW134	01D0552-002	03/05/2001	DUP	SILVER	0.15	UG/L	TR1	U	0.15	V1
SW134	01D0552-001	03/05/2001	REAL	SODIUM	11900.00	UG/L	TR1		0.65	V1
SW134	01D0552-002	03/05/2001	DUP	SODIUM	11300.00	UG/L	TR1		0.65	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW134	01D0552-001	03/05/2001	REAL	STRONTIUM	142.00	UG/L	TR1	B	0.02	V1
SW134	01D0552-002	03/05/2001	DUP	STRONTIUM	135.00	UG/L	TR1	B	0.02	V1
SW134	01D0552-001	03/05/2001	REAL	SULFATE	30.0	MG/L	TR1		1.0	V1
SW134	01D0552-002	03/05/2001	DUP	SULFATE	30.0	MG/L	TR1		1.0	V1
SW134	01D0552-001	03/05/2001	REAL	THALLIUM	0.75	UG/L	TR1	U	0.75	V1
SW134	01D0552-002	03/05/2001	DUP	THALLIUM	0.75	UG/L	TR1	U	0.75	V1
SW134	01D0552-001	03/05/2001	REAL	TIN	0.58	UG/L	TR1	U	0.58	V1
SW134	01D0552-002	03/05/2001	DUP	TIN	0.58	UG/L	TR1	U	0.58	V1
SW134	01D0552-001	03/05/2001	REAL	TOTAL DISSOLVED SOLIDS	200	MG/L	TR1		10	V1
SW134	01D0552-002	03/05/2001	DUP	TOTAL DISSOLVED SOLIDS	190	MG/L	TR1		10	V1
SW134	01D0552-001	03/05/2001	REAL	TOTAL SUSPENDED SOLIDS	93.0	MG/L	TR1		5.0	V1
SW134	01D0552-002	03/05/2001	DUP	TOTAL SUSPENDED SOLIDS	78.0	MG/L	TR1		5.0	V1
SW134	01D0552-001	03/05/2001	REAL	VANADIUM	9.80	UG/L	TR1	B	0.15	V1
SW134	01D0552-002	03/05/2001	DUP	VANADIUM	9.90	UG/L	TR1	B	0.15	V1
SW134	01D0552-001	03/05/2001	REAL	ZINC	12.60	UG/L	TR1	B	0.12	V1
SW134	01D0552-002	03/05/2001	DUP	ZINC	12.10	UG/L	TR1	B	0.12	V1
SW134	01D0704-007	04/17/2001	REAL	Alkalinity, Total as CaCO3	48.0	MG/L	TR1		5.0	V
SW134	01D0704-007	04/17/2001	REAL	ALUMINUM	8560.00	UG/L	TR1		3.20	V1
SW134	01D0704-007	04/17/2001	REAL	ANTIMONY	0.49	UG/L	TR1	B	0.48	V1
SW134	01D0704-007	04/17/2001	REAL	ARSENIC	2.60	UG/L	TR1	B	0.58	UJ1
SW134	01D0704-007	04/17/2001	REAL	BARIUM	99.20	UG/L	TR1	B	0.05	V1
SW134	01D0704-007	04/17/2001	REAL	BERYLLIUM	0.66	UG/L	TR1	B	0.05	V1
SW134	01D0704-007	04/17/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW134	01D0704-007	04/17/2001	REAL	CALCIUM	17400.00	UG/L	TR1		2.00	V1
SW134	01D0704-007	04/17/2001	REAL	CHLORIDE	5.40	MG/L	TR1		0.50	V
SW134	01D0704-007	04/17/2001	REAL	CHROMIUM	13.20	UG/L	TR1		0.22	V1
SW134	01D0704-007	04/17/2001	REAL	COBALT	0.80	UG/L	TR1	B	0.20	V1
SW134	01D0704-007	04/17/2001	REAL	COPPER	9.40	UG/L	TR1		0.18	V1
SW134	01D0704-007	04/17/2001	REAL	FLUORIDE	0.40	MG/L	TR1		0.05	V
SW134	01D0704-007	04/17/2001	REAL	IRON	4110.00	UG/L	TR1		3.90	V1
SW134	01D0704-007	04/17/2001	REAL	LEAD	8.40	UG/L	TR1		0.65	V1
SW134	01D0704-007	04/17/2001	REAL	LITHIUM	7.70	UG/L	TR1	B	0.05	J1
SW134	01D0704-007	04/17/2001	REAL	MAGNESIUM	4220.00	UG/L	TR1	B	2.20	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW134	01D0704-007	04/17/2001	REAL	MANGANESE	28.80	UG/L	TR1		0.02	V1
SW134	01D0704-007	04/17/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW134	01D0704-007	04/17/2001	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.25	UJ1
SW134	01D0704-007	04/17/2001	REAL	NICKEL	7.30	UG/L	TR1	B	0.30	V1
SW134	01D0704-007	04/17/2001	REAL	POTASSIUM	2470.00	UG/L	TR1	B	8.80	J1
SW134	01D0704-007	04/17/2001	REAL	Remainder	100	%	TR1		1	J
SW134	01D0704-007	04/17/2001	REAL	SELENIUM	1.10	UG/L	TR1	B	0.65	J1
SW134	01D0704-007	04/17/2001	REAL	Sieve 1	1	%	TR1	U	1	J
SW134	01D0704-007	04/17/2001	REAL	Sieve 2	1	%	TR1	U	1	J
SW134	01D0704-007	04/17/2001	REAL	Sieve 3	1	%	TR1	U	1	J
SW134	01D0704-007	04/17/2001	REAL	Sieve 4	1	%	TR1	U	1	J
SW134	01D0704-007	04/17/2001	REAL	Sieve 5	1	%	TR1	U	1	J
SW134	01D0704-007	04/17/2001	REAL	Sieve 6	1	%	TR1	U	1	J
SW134	01D0704-007	04/17/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW134	01D0704-007	04/17/2001	REAL	SODIUM	10700.00	UG/L	TR1		0.42	J1
SW134	01D0704-007	04/17/2001	REAL	STRONTIUM	123.00	UG/L	TR1	B	0.02	V1
SW134	01D0704-007	04/17/2001	REAL	SULFATE	22.0	MG/L	TR1		1.0	V
SW134	01D0704-007	04/17/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	J1
SW134	01D0704-007	04/17/2001	REAL	TIN	1.90	UG/L	TR1	B	0.88	UJ1
SW134	01D0704-007	04/17/2001	REAL	TOTAL DISSOLVED SOLIDS	290	MG/L	TR1		10	J
SW134	01D0704-007	04/17/2001	REAL	TOTAL SUSPENDED SOLIDS	100.0	MG/L	TR1		5.0	V
SW134	01D0704-007	04/17/2001	REAL	VANADIUM	24.00	UG/L	TR1	B	0.18	V1
SW134	01D0704-007	04/17/2001	REAL	ZINC	19.20	UG/L	TR1	B	0.08	V1
SW134	01D1058-005	07/10/2001	REAL	Alkalinity, Total as CaCO3	230.0	MG/L	TR1		5.0	V
SW134	01D1058-005	07/10/2001	REAL	ALUMINUM	1680.00	UG/L	TR1		3.20	V1
SW134	01D1058-005	07/10/2001	REAL	ANTIMONY	0.93	UG/L	TR1	B	0.48	V1
SW134	01D1058-005	07/10/2001	REAL	ARSENIC	1.00	UG/L	TR1	B	0.58	V1
SW134	01D1058-005	07/10/2001	REAL	BARIUM	94.20	UG/L	TR1	B	0.05	V1
SW134	01D1058-005	07/10/2001	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.05	UJ1
SW134	01D1058-005	07/10/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW134	01D1058-005	07/10/2001	REAL	CALCIUM	28100.00	UG/L	TR1		2.00	V1
SW134	01D1058-005	07/10/2001	REAL	CHLORIDE	13.00	MG/L	TR1		0.50	J
SW134	01D1058-005	07/10/2001	REAL	CHROMIUM	162.00	UG/L	TR1		0.22	V1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW134	01D1058-005	07/10/2001	REAL	COBALT	2.10	UG/L	TR1	B	0.20	V1
SW134	01D1058-005	07/10/2001	REAL	COPPER	4.80	UG/L	TR1		0.18	V1
SW134	01D1058-005	07/10/2001	REAL	FLUORIDE	0.48	MG/L	TR1		0.05	V
SW134	01D1058-005	07/10/2001	REAL	HARDNESS, TOTAL	110.0	MG/L	TR1		1.0	V
SW134	01D1058-005	07/10/2001	REAL	IRON	1660.00	UG/L	TR1		3.90	V1
SW134	01D1058-005	07/10/2001	REAL	LEAD	2.40	UG/L	TR1		0.65	UJ1
SW134	01D1058-005	07/10/2001	REAL	LITHIUM	6.50	UG/L	TR1	B	0.05	J1
SW134	01D1058-005	07/10/2001	REAL	MAGNESIUM	5970.00	UG/L	TR1		2.20	V1
SW134	01D1058-005	07/10/2001	REAL	MANGANESE	35.80	UG/L	TR1		0.02	V1
SW134	01D1058-005	07/10/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW134	01D1058-005	07/10/2001	REAL	MOLYBDENUM	5.10	UG/L	TR1	B	0.25	V1
SW134	01D1058-005	07/10/2001	REAL	NICKEL	93.90	UG/L	TR1		0.30	V1
SW134	01D1058-005	07/10/2001	REAL	POTASSIUM	1660.00	UG/L	TR1	B	8.80	J1
SW134	01D1058-005	07/10/2001	REAL	Remainder	100	%	TR1		1	
SW134	01D1058-005	07/10/2001	REAL	SELENIUM	0.65	UG/L	TR1	U	0.65	V1
SW134	01D1058-005	07/10/2001	REAL	Sieve 1	1	%	TR1	U	1	
SW134	01D1058-005	07/10/2001	REAL	Sieve 2	1	%	TR1	U	1	
SW134	01D1058-005	07/10/2001	REAL	Sieve 3	1	%	TR1	U	1	
SW134	01D1058-005	07/10/2001	REAL	Sieve 4	1	%	TR1	U	1	
SW134	01D1058-005	07/10/2001	REAL	Sieve 5	1	%	TR1	U	1	
SW134	01D1058-005	07/10/2001	REAL	Sieve 6	1	%	TR1	U	1	
SW134	01D1058-005	07/10/2001	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
SW134	01D1058-005	07/10/2001	REAL	SODIUM	13900.00	UG/L	TR1		0.42	V1
SW134	01D1058-005	07/10/2001	REAL	STRONTIUM	161.00	UG/L	TR1	B	0.02	V1
SW134	01D1058-005	07/10/2001	REAL	SULFATE	37.0	MG/L	TR1		1.0	J
SW134	01D1058-005	07/10/2001	REAL	THALLIUM	0.98	UG/L	TR1	U	0.98	V1
SW134	01D1058-005	07/10/2001	REAL	TIN	0.88	UG/L	TR1	U	0.88	V1
SW134	01D1058-005	07/10/2001	REAL	TOTAL DISSOLVED SOLIDS	200	MG/L	TR1		10	V
SW134	01D1058-005	07/10/2001	REAL	TOTAL SUSPENDED SOLIDS	57.0	MG/L	TR1		5.0	V
SW134	01D1058-005	07/10/2001	REAL	VANADIUM	7.40	UG/L	TR1	B	0.18	V1
SW134	01D1058-005	07/10/2001	REAL	ZINC	13.80	UG/L	TR1	B	0.08	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
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Abbreviations

MG/L = Milligrams per liter

TR1 = First analytical run

TR2 = Second analytical run, implies dilution (also DL1, DIL)

UG/L = Micrograms per liter (or µg/L)

(analyte)_D = dissolved fraction

Validation/Verification Qualifiers*

(list in order from highest confidence to lowest)

V/V1 = Valid

J/J1 = Estimated

UJ/UJ1 = Estimated at an elevated level of detection

R/R1 = Rejected

1 = Unvalidated/Unverified member of TR1-TR2 pair.

Other pair member should be Validated/Verified.

*Validation is a more thorough review of laboratory package than verification.

Lab Qualifiers (note analyte group)

* = Outside contract required QC limits (organics)

* = Matrix duplicate analysis did not meet advisory limits

B = Detected concentration less than contract required detection limit (CRDL) but above instrument detection limit (IDL) (metals & other inorganics)

B = Analyte present in both sample and method blank (MB) (organics)

E = analyte exceeds calibration range of instrument (organics)

E = reported result is estimated due to interference (inorganics)

J = Positively identified below sample quantification limit (SQL), result estimated (organics)

J = Estimated quantification (inorganics)

N = Spike recoveries in the matrix spike sample did not meet advisory limits (metals)

U = Target analyte not detected (all analytes)

B.2.3 Equipment Rinsate Blanks

Table B-3. Rinsate Blank Analytical Data: WY2001.

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	01D1011-003	06/29/2001	RNS	AMERICIUM-241	0.001	PCI/L	TR1	U	0.016	0.009	V1
995POE	01D1011-003	06/29/2001	RNS	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.024	0.030	V1
995POE	01D1011-003	06/29/2001	RNS	TRITIUM	-279	PCI/L	TR1	U	310	157	
995POE	01D1011-003	06/29/2001	RNS	URANIUM-233,-234	0.043	PCI/L	TR1	J	0.022	0.033	V1
995POE	01D1011-003	06/29/2001	RNS	URANIUM-235	0.009	PCI/L	TR1	U	0.017	0.017	V1
995POE	01D1011-003	06/29/2001	RNS	URANIUM-238	0.042	PCI/L	TR1	J	0.019	0.031	V1
GS01	01D0811-007	05/14/2001	RNS	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.024	0.003	V1
GS01	01D0811-007	05/14/2001	RNS	PLUTONIUM-239/240	-0.006	PCI/L	TR1	U	0.021	0.024	V1
GS01	01D0811-007	05/14/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
GS01	01D0811-007	05/14/2001	RNS	TRITIUM	-225	PCI/L	TR1	U	323	167	V1
GS03	01D0275-002	12/04/2000	RNS	AMERICIUM-241	0.002	PCI/L	TR1	U	0.009	0.007	V
GS03	01D0275-002	12/04/2000	RNS	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.011	0.013	V
GS03	01D0275-002	12/04/2000	RNS	TRITIUM	100	PCI/L	TR1	U	270	160	
GS03	01D1157-001	07/27/2001	RNS	AMERICIUM-241	-0.005	PCI/L	TR1	U	0.018	0.004	V1
GS03	01D1157-001	07/27/2001	RNS	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.016	0.002	V1
GS03	01D1157-001	07/27/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V
GS03	01D1157-001	07/27/2001	RNS	TRITIUM	68	PCI/L	TR1	U	201	118	V1
GS08	01D0887-005	05/30/2001	RNS	AMERICIUM-241	0.042	PCI/L	TR1		0.024	0.036	V1
GS08	01D0887-005	05/30/2001	RNS	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.029	0.021	V1
GS08	01D0887-005	05/30/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
GS08	01D0887-005	05/30/2001	RNS	URANIUM-233,-234	0.008	PCI/L	TR1	U	0.019	0.017	V1
GS08	01D0887-005	05/30/2001	RNS	URANIUM-235	-0.001	PCI/L	TR1	U	0.015	0.001	V1
GS08	01D0887-005	05/30/2001	RNS	URANIUM-238	0.001	PCI/L	TR1	U	0.018	0.010	V1
GS10	01D0187-002	10/20/2000	RNS	ALUMINUM	7.30	UG/L	TR1	B	2.60		V
GS10	01D0187-002	10/20/2000	RNS	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.008	0.008	V1
GS10	01D0187-002	10/20/2000	RNS	ANTIMONY	0.52	UG/L	TR1	U	0.52		V
GS10	01D0187-002	10/20/2000	RNS	ARSENIC	0.85	UG/L	TR1	U	0.85		V
GS10	01D0187-002	10/20/2000	RNS	BARIUM	0.30	UG/L	TR1	B	0.05		UJ
GS10	01D0187-002	10/20/2000	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		V
GS10	01D0187-002	10/20/2000	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		V
GS10	01D0187-002	10/20/2000	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V
GS10	01D0187-002	10/20/2000	RNS	CADMIUM D	0.08	UG/L	TR1	U	0.08		V
GS10	01D0187-002	10/20/2000	RNS	CALCIUM	46.60	UG/L	TR1	B	2.20		UJ

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	01D0187-002	10/20/2000	RNS	CHLORIDE	0.50	MG/L	TR1	U	0.50		V
GS10	01D0187-002	10/20/2000	RNS	CHROMIUM	0.22	UG/L	TR1	U	0.22		V
GS10	01D0187-002	10/20/2000	RNS	CHROMIUM	0.22	UG/L	TR1	U	0.22		V
GS10	01D0187-002	10/20/2000	RNS	COBALT	0.20	UG/L	TR1	U	0.20		V
GS10	01D0187-002	10/20/2000	RNS	COPPER	0.20	UG/L	TR1	U	0.20		V
GS10	01D0187-002	10/20/2000	RNS	FLUORIDE	0.05	MG/L	TR1	U	0.05		V
GS10	01D0187-002	10/20/2000	RNS	HARDNESS, TOTAL	8	MG/L	TR1		1		V
GS10	01D0187-002	10/20/2000	RNS	IRON	4.30	UG/L	TR1	B	4.10		UJ
GS10	01D0187-002	10/20/2000	RNS	LEAD	0.52	UG/L	TR1	U	0.52		J
GS10	01D0187-002	10/20/2000	RNS	LITHIUM	0.17	UG/L	TR1	B	0.05		UJ
GS10	01D0187-002	10/20/2000	RNS	MAGNESIUM	19.20	UG/L	TR1	B	2.00		UJ
GS10	01D0187-002	10/20/2000	RNS	MANGANESE	0.15	UG/L	TR1	B	0.05		UJ
GS10	01D0187-002	10/20/2000	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		V
GS10	01D0187-002	10/20/2000	RNS	MOLYBDENUM	0.22	UG/L	TR1	U	0.22		V
GS10	01D0187-002	10/20/2000	RNS	NICKEL	0.30	UG/L	TR1	U	0.30		V
GS10	01D0187-002	10/20/2000	RNS	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.008	0.007	V1
GS10	01D0187-002	10/20/2000	RNS	POTASSIUM	7.50	UG/L	TR1	U	7.50		V
GS10	01D0187-002	10/20/2000	RNS	SELENIUM	1.10	UG/L	TR1	U	1.10		V
GS10	01D0187-002	10/20/2000	RNS	SILICON	25.40	UG/L	TR1	B	1.50		V1
GS10	01D0187-002	10/20/2000	RNS	SILVER	0.28	UG/L	TR1	U	0.28		V
GS10	01D0187-002	10/20/2000	RNS	SILVER D	0.28	UG/L	TR1	U	0.28		V
GS10	01D0187-002	10/20/2000	RNS	SODIUM	48.60	UG/L	TR1	B	6.80		V
GS10	01D0187-002	10/20/2000	RNS	STRONTIUM	0.33	UG/L	TR1	B	0.02		V
GS10	01D0187-002	10/20/2000	RNS	SULFATE	1	MG/L	TR1	U	1		V
GS10	01D0187-002	10/20/2000	RNS	THALLIUM	0.90	UG/L	TR1	U	0.90		V
GS10	01D0187-002	10/20/2000	RNS	TIN	0.52	UG/L	TR1	U	0.52		V
GS10	01D0187-002	10/20/2000	RNS	TOTAL DISSOLVED SOLIDS	10	MG/L	TR1	U	10		V
GS10	01D0187-002	10/20/2000	RNS	TOTAL ORGANIC CARBON	0.5	MG/L	TR1	U	0.5		V1
GS10	01D0187-002	10/20/2000	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V
GS10	01D0187-002	10/20/2000	RNS	URANIUM-233,-234	0.007	PCI/L	TR1	U	0.007	0.007	V1
GS10	01D0187-002	10/20/2000	RNS	URANIUM-235	-0.001	PCI/L	TR1	U	0.005	0.000	V1
GS10	01D0187-002	10/20/2000	RNS	URANIUM-238	-0.002	PCI/L	TR1	U	0.008	0.003	V1
GS10	01D0187-002	10/20/2000	RNS	VANADIUM	0.22	UG/L	TR1	U	0.22		V
GS10	01D0187-002	10/20/2000	RNS	ZINC	1.50	UG/L	TR1	B	0.10		V
GS10	01D1158-001	07/27/2001	RNS	AMERICIUM-241	0.000	PCI/L	TR1	U	0.018	0.011	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	01D1158-001	07/27/2001	RNS	BERYLLIUM	0.05	UG/L	TR1	U	0.05		J1
GS10	01D1158-001	07/27/2001	RNS	BERYLLIUM	0.05	UG/L	TR2	U	0.05		1
GS10	01D1158-001	07/27/2001	RNS	CADMIUM D	0.08	UG/L	TR1	U	0.08		J1
GS10	01D1158-001	07/27/2001	RNS	CADMIUM D	0.08	UG/L	TR2	U	0.08		1
GS10	01D1158-001	07/27/2001	RNS	CHROMIUM	0.22	UG/L	TR2	U	0.22		1
GS10	01D1158-001	07/27/2001	RNS	CHROMIUM	0.22	UG/L	TR1	U	0.22		J1
GS10	01D1158-001	07/27/2001	RNS	HARDNESS, TOTAL	1	MG/L	TR1	U	1		V1
GS10	01D1158-001	07/27/2001	RNS	PLUTONIUM-239/240	-0.009	PCI/L	TR1	U	0.015	0.012	V1
GS10	01D1158-001	07/27/2001	RNS	SILVER D	0.25	UG/L	TR2	U	0.25		1
GS10	01D1158-001	07/27/2001	RNS	SILVER D	0.25	UG/L	TR1	U	0.25		J1
GS10	01D1158-001	07/27/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
GS10	01D1158-001	07/27/2001	RNS	URANIUM-233,-234	0.016	PCI/L	TR1	U	0.020	0.022	V1
GS10	01D1158-001	07/27/2001	RNS	URANIUM-235	-0.002	PCI/L	TR1	U	0.016	0.002	V1
GS10	01D1158-001	07/27/2001	RNS	URANIUM-238	0.006	PCI/L	TR1	U	0.017	0.015	V1
GS31	01D1011-002	06/29/2001	RNS	AMERICIUM-241	0.002	PCI/L	TR1	U	0.018	0.010	V1
GS31	01D1011-002	06/29/2001	RNS	PLUTONIUM-239/240	-0.006	PCI/L	TR1	U	0.017	0.006	V1
GS31	01D1011-002	06/29/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
GS31	01D1011-002	06/29/2001	RNS	URANIUM-233,-234	0.023	PCI/L	TR1	J	0.022	0.026	V1
GS31	01D1011-002	06/29/2001	RNS	URANIUM-235	0.010	PCI/L	TR1	U	0.017	0.017	V1
GS31	01D1011-002	06/29/2001	RNS	URANIUM-238	0.022	PCI/L	TR1	J	0.019	0.024	V1
GS38	01D0887-006	05/30/2001	RNS	AMERICIUM-241	0.007	PCI/L	TR1	U	0.019	0.014	V1
GS38	01D0887-006	05/30/2001	RNS	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.025	0.015	V1
GS38	01D0887-006	05/30/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
GS43	01D0274-001	12/04/2000	RNS	ALUMINIUM	5.70	UG/L	TR1	U	5.70		J1
GS43	01D0274-001	12/04/2000	RNS	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.010	0.009	V1
GS43	01D0274-001	12/04/2000	RNS	ANTIMONY	0.58	UG/L	TR1	U	0.58		V1
GS43	01D0274-001	12/04/2000	RNS	ARSENIC	0.60	UG/L	TR1	U	0.60		J1
GS43	01D0274-001	12/04/2000	RNS	BARIUM	0.34	UG/L	TR1	B	0.05		V1
GS43	01D0274-001	12/04/2000	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		J1
GS43	01D0274-001	12/04/2000	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		J1
GS43	01D0274-001	12/04/2000	RNS	CALCIUM	118.00	UG/L	TR1	B	4.80		V1
GS43	01D0274-001	12/04/2000	RNS	CHROMIUM	0.37	UG/L	TR1	B	0.15		J1
GS43	01D0274-001	12/04/2000	RNS	COBALT	0.22	UG/L	TR1	U	0.22		V1
GS43	01D0274-001	12/04/2000	RNS	COPPER	0.22	UG/L	TR1	U	0.22		V1
GS43	01D0274-001	12/04/2000	RNS	IRON	6.60	UG/L	TR1	B	5.40		V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS43	01D0274-001	12/04/2000	RNS	LEAD	0.52	UG/L	TR1	U	0.52		V1
GS43	01D0274-001	12/04/2000	RNS	LITHIUM	0.05	UG/L	TR1	U	0.05		J1
GS43	01D0274-001	12/04/2000	RNS	MAGNESIUM	16.80	UG/L	TR1	B	1.70		V1
GS43	01D0274-001	12/04/2000	RNS	MANGANESE	0.77	UG/L	TR1	B	0.05		V1
GS43	01D0274-001	12/04/2000	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		V1
GS43	01D0274-001	12/04/2000	RNS	MERCURY	0.10	UG/L	TR2	U	0.10		1
GS43	01D0274-001	12/04/2000	RNS	MOLYBDENUM	0.25	UG/L	TR1	U	0.25		V1
GS43	01D0274-001	12/04/2000	RNS	NICKEL	1.10	UG/L	TR1	B	0.22		V1
GS43	01D0274-001	12/04/2000	RNS	PLUTONIUM-239/240	-0.005	PCI/L	TR1	U	0.007	0.006	V1
GS43	01D0274-001	12/04/2000	RNS	POTASSIUM	10.20	UG/L	TR1	U	10.20		V1
GS43	01D0274-001	12/04/2000	RNS	SELENIUM	0.82	UG/L	TR1	U	0.82		V1
GS43	01D0274-001	12/04/2000	RNS	SILVER	0.28	UG/L	TR1	U	0.28		V1
GS43	01D0274-001	12/04/2000	RNS	SODIUM	85.10	UG/L	TR1	B	1.00		UJ1
GS43	01D0274-001	12/04/2000	RNS	STRONTIUM	0.74	UG/L	TR1	B	0.02		V1
GS43	01D0274-001	12/04/2000	RNS	THALLIUM	1.00	UG/L	TR1	U	1.00		V1
GS43	01D0274-001	12/04/2000	RNS	TIN	0.65	UG/L	TR1	U	0.65		V1
GS43	01D0274-001	12/04/2000	RNS	URANIUM-233,-234	-0.001	PCI/L	TR1	U	0.007	0.004	V1
GS43	01D0274-001	12/04/2000	RNS	URANIUM-235	-0.001	PCI/L	TR1	U	0.005	0.000	V1
GS43	01D0274-001	12/04/2000	RNS	URANIUM-238	-0.003	PCI/L	TR1	U	0.010	0.002	V1
GS43	01D0274-001	12/04/2000	RNS	VANADIUM	0.20	UG/L	TR1	U	0.20		V1
GS43	01D0274-001	12/04/2000	RNS	ZINC	14.00	UG/L	TR1	B	0.10		V1
GS44	01D1158-002	07/27/2001	RNS	ALUMINUM	4.00	UG/L	TR1	U	4.00		J1
GS44	01D1158-002	07/27/2001	RNS	ALUMINUM	9.80	UG/L	TR2	B	4.00		1
GS44	01D1158-002	07/27/2001	RNS	AMERICIUM-241	0.005	PCI/L	TR1	U	0.028	0.017	V1
GS44	01D1158-002	07/27/2001	RNS	ANTIMONY	0.58	UG/L	TR2	U	0.58		1
GS44	01D1158-002	07/27/2001	RNS	ANTIMONY	0.58	UG/L	TR1	U	0.58		UJ1
GS44	01D1158-002	07/27/2001	RNS	ARSENIC	0.98	UG/L	TR2	U	0.98		1
GS44	01D1158-002	07/27/2001	RNS	ARSENIC	0.98	UG/L	TR1	U	0.98		V1
GS44	01D1158-002	07/27/2001	RNS	BARIUM	0.26	UG/L	TR2	B	0.02		1
GS44	01D1158-002	07/27/2001	RNS	BARIUM	0.12	UG/L	TR1	B	0.02		UJ1
GS44	01D1158-002	07/27/2001	RNS	BERYLLIUM	0.05	UG/L	TR2	U	0.05		1
GS44	01D1158-002	07/27/2001	RNS	BERYLLIUM	0.05	UG/L	TR1	U	0.05		V1
GS44	01D1158-002	07/27/2001	RNS	CADMIUM	0.08	UG/L	TR2	U	0.08		1
GS44	01D1158-002	07/27/2001	RNS	CADMIUM	0.09	UG/L	TR1	B	0.08		V1
GS44	01D1158-002	07/27/2001	RNS	CALCIUM	21.97	UG/L	TR2	B	2.00		1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS44	01D1158-002	07/27/2001	RNS	CALCIUM	24.50	UG/L	TR1	B	2.00		UJ1
GS44	01D1158-002	07/27/2001	RNS	CHROMIUM	0.35	UG/L	TR2	U	0.35		1
GS44	01D1158-002	07/27/2001	RNS	CHROMIUM	0.35	UG/L	TR1	U	0.35		V1
GS44	01D1158-002	07/27/2001	RNS	COBALT	0.23	UG/L	TR2	U	0.22		1
GS44	01D1158-002	07/27/2001	RNS	COBALT	0.22	UG/L	TR1	U	0.22		V1
GS44	01D1158-002	07/27/2001	RNS	COPPER	0.18	UG/L	TR2	B	0.12		1
GS44	01D1158-002	07/27/2001	RNS	COPPER	0.12	UG/L	TR1	U	0.12		V1
GS44	01D1158-002	07/27/2001	RNS	IRON	3.90	UG/L	TR2	U	3.90		1
GS44	01D1158-002	07/27/2001	RNS	IRON	3.90	UG/L	TR1	U	3.90		V1
GS44	01D1158-002	07/27/2001	RNS	LEAD	0.60	UG/L	TR2	U	0.60		1
GS44	01D1158-002	07/27/2001	RNS	LEAD	1.50	UG/L	TR1	B	0.60		V1
GS44	01D1158-002	07/27/2001	RNS	LITHIUM	0.13	UG/L	TR2	B	0.02		1
GS44	01D1158-002	07/27/2001	RNS	LITHIUM	0.22	UG/L	TR1	B	0.02		UJ1
GS44	01D1158-002	07/27/2001	RNS	MAGNESIUM	6.04	UG/L	TR2	B	2.00		1
GS44	01D1158-002	07/27/2001	RNS	MAGNESIUM	6.60	UG/L	TR1	B	2.00		V1
GS44	01D1158-002	07/27/2001	RNS	MANGANESE	0.04	UG/L	TR2	B	0.02		1
GS44	01D1158-002	07/27/2001	RNS	MANGANESE	0.08	UG/L	TR1	B	0.02		UJ1
GS44	01D1158-002	07/27/2001	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		V1
GS44	01D1158-002	07/27/2001	RNS	MERCURY	0.10	UG/L	TR2	U	0.10		1
GS44	01D1158-002	07/27/2001	RNS	MOLYBDENUM	0.25	UG/L	TR2	U	0.25		1
GS44	01D1158-002	07/27/2001	RNS	MOLYBDENUM	0.25	UG/L	TR1	U	0.25		V1
GS44	01D1158-002	07/27/2001	RNS	NICKEL	0.42	UG/L	TR1	U	0.42		V1
GS44	01D1158-002	07/27/2001	RNS	NICKEL	0.42	UG/L	TR2	U	0.42		1
GS44	01D1158-002	07/27/2001	RNS	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.017	0.016	V1
GS44	01D1158-002	07/27/2001	RNS	POTASSIUM	15.60	UG/L	TR2	B	2.70		1
GS44	01D1158-002	07/27/2001	RNS	POTASSIUM	10.20	UG/L	TR1	B	2.70		J1
GS44	01D1158-002	07/27/2001	RNS	SELENIUM	0.80	UG/L	TR1	U	0.80		V1
GS44	01D1158-002	07/27/2001	RNS	SELENIUM	0.80	UG/L	TR2	U	0.80		1
GS44	01D1158-002	07/27/2001	RNS	SILVER	0.12	UG/L	TR2	U	0.12		1
GS44	01D1158-002	07/27/2001	RNS	SILVER	0.12	UG/L	TR1	U	0.12		J1
GS44	01D1158-002	07/27/2001	RNS	SODIUM	58.20	UG/L	TR2	B	0.40		1
GS44	01D1158-002	07/27/2001	RNS	SODIUM	44.90	UG/L	TR1	B	0.40		UJ1
GS44	01D1158-002	07/27/2001	RNS	STRONTIUM	0.16	UG/L	TR2	B	0.02		1
GS44	01D1158-002	07/27/2001	RNS	STRONTIUM	0.21	UG/L	TR1	B	0.02		V1
GS44	01D1158-002	07/27/2001	RNS	THALLIUM	0.85	UG/L	TR2	U	0.85		1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS44	01D1158-002	07/27/2001	RNS	THALLIUM	0.85	UG/L	TR1	U	0.85		V1
GS44	01D1158-002	07/27/2001	RNS	TIN	0.97	UG/L	TR2	U	0.98		1
GS44	01D1158-002	07/27/2001	RNS	TIN	0.98	UG/L	TR1	U	0.98		V1
GS44	01D1158-002	07/27/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
GS44	01D1158-002	07/27/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
GS44	01D1158-002	07/27/2001	RNS	TRITIUM	14	PCI/L	TR1	U	200	113	V1
GS44	01D1158-002	07/27/2001	RNS	URANIUM-233,-234	0.009	PCI/L	TR1	U	0.020	0.018	V1
GS44	01D1158-002	07/27/2001	RNS	URANIUM-235	0.003	PCI/L	TR1	U	0.016	0.011	V1
GS44	01D1158-002	07/27/2001	RNS	URANIUM-238	0.016	PCI/L	TR1	U	0.017	0.019	V1
GS44	01D1158-002	07/27/2001	RNS	VANADIUM	0.12	UG/L	TR2	U	0.12		1
GS44	01D1158-002	07/27/2001	RNS	VANADIUM	0.12	UG/L	TR1	U	0.12		V1
GS44	01D1158-002	07/27/2001	RNS	ZINC	1.10	UG/L	TR1	B	0.10		UJ1
GS44	01D1158-002	07/27/2001	RNS	ZINC	1.04	UG/L	TR2	B	0.10		1
SW022	01D0887-004	05/30/2001	RNS	AMERICIUM-241	0.042	PCI/L	TR1		0.021	0.034	V1
SW022	01D0887-004	05/30/2001	RNS	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.023	0.013	V1
SW022	01D0887-004	05/30/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
SW022	01D0887-004	05/30/2001	RNS	URANIUM-233,-234	0.009	PCI/L	TR1	U	0.020	0.018	V1
SW022	01D0887-004	05/30/2001	RNS	URANIUM-235	-0.001	PCI/L	TR1	U	0.017	0.001	V1
SW022	01D0887-004	05/30/2001	RNS	URANIUM-238	0.001	PCI/L	TR1	U	0.019	0.010	V1
SW093	01D0187-001	10/20/2000	RNS	AMERICIUM-241	-0.015	PCI/L	TR1	U	0.007	0.010	V1
SW093	01D0187-001	10/20/2000	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		V
SW093	01D0187-001	10/20/2000	RNS	CADMIUM D	0.08	UG/L	TR1	U	0.08		V
SW093	01D0187-001	10/20/2000	RNS	CHROMIUM	0.22	UG/L	TR1	U	0.22		V
SW093	01D0187-001	10/20/2000	RNS	HARDNESS, TOTAL	12	MG/L	TR1		1		V
SW093	01D0187-001	10/20/2000	RNS	PLUTONIUM-239/240	-0.007	PCI/L	TR1	U	0.011	0.004	V1
SW093	01D0187-001	10/20/2000	RNS	SILVER D	0.28	UG/L	TR1	U	0.28		V
SW093	01D0187-001	10/20/2000	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V
SW093	01D0187-001	10/20/2000	RNS	URANIUM-233,-234	0.000	PCI/L	TR1	U	0.007	0.008	V1
SW093	01D0187-001	10/20/2000	RNS	URANIUM-235	0.001	PCI/L	TR1	U	0.005	0.004	V1
SW093	01D0187-001	10/20/2000	RNS	URANIUM-238	0.002	PCI/L	TR1	U	0.008	0.005	V1
SW093	01D1158-003	07/27/2001	RNS	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.017	0.010	V1
SW093	01D1158-003	07/27/2001	RNS	BERYLLIUM	0.05	UG/L	TR1	U	0.05		J1
SW093	01D1158-003	07/27/2001	RNS	CADMIUM D	0.08	UG/L	TR1	U	0.08		J1
SW093	01D1158-003	07/27/2001	RNS	CHROMIUM	0.22	UG/L	TR1	U	0.22		J1
SW093	01D1158-003	07/27/2001	RNS	HARDNESS, TOTAL	1	MG/L	TR1	U	1		V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	01D1158-003	07/27/2001	RNS	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0.016	0.004	V1
SW093	01D1158-003	07/27/2001	RNS	SILVER D	0.25	UG/L	TR1	U	0.25		J1
SW093	01D1158-003	07/27/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
SW093	01D1158-003	07/27/2001	RNS	URANIUM-233,-234	-0.004	PCI/L	TR1	U	0.020	0.009	V1
SW093	01D1158-003	07/27/2001	RNS	URANIUM-235	0.003	PCI/L	TR1	U	0.015	0.010	V1
SW093	01D1158-003	07/27/2001	RNS	URANIUM-238	0.012	PCI/L	TR1	U	0.017	0.017	V1
SW120	01D0811-006	05/14/2001	RNS	ALUMINUM	6.55	UG/L	TR2	B	3.20		1
SW120	01D0811-006	05/14/2001	RNS	ALUMINUM	3.20	UG/L	TR1	U	3.20		V1
SW120	01D0811-006	05/14/2001	RNS	AMERICIUM-241	0.009	PCI/L	TR1	U	0.022	0.016	V1
SW120	01D0811-006	05/14/2001	RNS	ANTIMONY	0.48	UG/L	TR2	U	0.48		1
SW120	01D0811-006	05/14/2001	RNS	ANTIMONY	0.48	UG/L	TR1	U	0.48		V1
SW120	01D0811-006	05/14/2001	RNS	ARSENIC	0.58	UG/L	TR2	U	0.58		1
SW120	01D0811-006	05/14/2001	RNS	ARSENIC	0.58	UG/L	TR1	U	0.58		J1
SW120	01D0811-006	05/14/2001	RNS	BARIUM	0.16	UG/L	TR2	B	0.05		1
SW120	01D0811-006	05/14/2001	RNS	BARIUM	0.20	UG/L	TR1	B	0.05		UJ1
SW120	01D0811-006	05/14/2001	RNS	BERYLLIUM	0.05	UG/L	TR2	U	0.05		1
SW120	01D0811-006	05/14/2001	RNS	BERYLLIUM	0.05	UG/L	TR1	U	0.05		V1
SW120	01D0811-006	05/14/2001	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V1
SW120	01D0811-006	05/14/2001	RNS	CADMIUM	0.08	UG/L	TR2	U	0.08		1
SW120	01D0811-006	05/14/2001	RNS	CALCIUM	38.10	UG/L	TR1	B	2.00		V1
SW120	01D0811-006	05/14/2001	RNS	CALCIUM	34.65	UG/L	TR2	B	2.00		1
SW120	01D0811-006	05/14/2001	RNS	CHROMIUM	0.24	UG/L	TR1	B	0.22		V1
SW120	01D0811-006	05/14/2001	RNS	CHROMIUM	0.23	UG/L	TR2	U	0.22		1
SW120	01D0811-006	05/14/2001	RNS	COBALT	0.20	UG/L	TR1	U	0.20		V1
SW120	01D0811-006	05/14/2001	RNS	COBALT	0.20	UG/L	TR2	U	0.20		1
SW120	01D0811-006	05/14/2001	RNS	COPPER	0.56	UG/L	TR1	B	0.18		UJ1
SW120	01D0811-006	05/14/2001	RNS	COPPER	0.36	UG/L	TR2	B	0.18		1
SW120	01D0811-006	05/14/2001	RNS	IRON	4.90	UG/L	TR1	B	3.90		V1
SW120	01D0811-006	05/14/2001	RNS	IRON	48.85	UG/L	TR2	B	3.90		1
SW120	01D0811-006	05/14/2001	RNS	LEAD	0.65	UG/L	TR1	U	0.65		V1
SW120	01D0811-006	05/14/2001	RNS	LEAD	0.65	UG/L	TR2	U	0.65		1
SW120	01D0811-006	05/14/2001	RNS	LITHIUM	0.18	UG/L	TR1	B	0.05		UJ1
SW120	01D0811-006	05/14/2001	RNS	LITHIUM	0.08	UG/L	TR2	B	0.05		1
SW120	01D0811-006	05/14/2001	RNS	MAGNESIUM	7.80	UG/L	TR1	B	2.20		V1
SW120	01D0811-006	05/14/2001	RNS	MAGNESIUM	8.33	UG/L	TR2	B	2.20		1

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Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW120	01D0811-006	05/14/2001	RNS	MANGANESE	0.08	UG/L	TR1	B	0.02		UJ1
SW120	01D0811-006	05/14/2001	RNS	MANGANESE	0.08	UG/L	TR2	B	0.02		1
SW120	01D0811-006	05/14/2001	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		V1
SW120	01D0811-006	05/14/2001	RNS	MOLYBDENUM	0.64	UG/L	TR1	B	0.25		V1
SW120	01D0811-006	05/14/2001	RNS	MOLYBDENUM	0.25	UG/L	TR2	U	0.25		1
SW120	01D0811-006	05/14/2001	RNS	NICKEL	0.36	UG/L	TR1	B	0.30		UJ1
SW120	01D0811-006	05/14/2001	RNS	NICKEL	0.30	UG/L	TR2	U	0.30		1
SW120	01D0811-006	05/14/2001	RNS	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.020	0.029	V1
SW120	01D0811-006	05/14/2001	RNS	POTASSIUM	8.80	UG/L	TR1	U	8.80		V1
SW120	01D0811-006	05/14/2001	RNS	POTASSIUM	8.83	UG/L	TR2	U	8.80		1
SW120	01D0811-006	05/14/2001	RNS	SELENIUM	0.65	UG/L	TR1	U	0.65		J1
SW120	01D0811-006	05/14/2001	RNS	SELENIUM	0.65	UG/L	TR2	U	0.65		1
SW120	01D0811-006	05/14/2001	RNS	SILVER	0.25	UG/L	TR1	U	0.25		V1
SW120	01D0811-006	05/14/2001	RNS	SILVER	0.25	UG/L	TR2	U	0.25		1
SW120	01D0811-006	05/14/2001	RNS	SODIUM	55.60	UG/L	TR1	B	0.42		UJ1
SW120	01D0811-006	05/14/2001	RNS	SODIUM	64.61	UG/L	TR2	B	0.42		1
SW120	01D0811-006	05/14/2001	RNS	STRONTIUM	0.20	UG/L	TR1	B	0.02		V1
SW120	01D0811-006	05/14/2001	RNS	STRONTIUM	0.18	UG/L	TR2	B	0.02		1
SW120	01D0811-006	05/14/2001	RNS	THALLIUM	0.98	UG/L	TR1	U	0.98		V1
SW120	01D0811-006	05/14/2001	RNS	THALLIUM	0.98	UG/L	TR2	U	0.98		1
SW120	01D0811-006	05/14/2001	RNS	TIN	0.88	UG/L	TR1	U	0.88		V1
SW120	01D0811-006	05/14/2001	RNS	TIN	0.88	UG/L	TR2	U	0.88		1
SW120	01D0811-006	05/14/2001	RNS	TOTAL SUSPENDED SOLIDS	5	MG/L	TR1	U	5		V1
SW120	01D0811-006	05/14/2001	RNS	TRITIUM	-309	PCI/L	TR1	U	317	158	V1
SW120	01D0811-006	05/14/2001	RNS	URANIUM-233,-234	0.020	PCI/L	TR1	J	0.018	0.023	V1
SW120	01D0811-006	05/14/2001	RNS	URANIUM-235	-0.004	PCI/L	TR1	U	0.017	0.005	V1
SW120	01D0811-006	05/14/2001	RNS	URANIUM-238	0.002	PCI/L	TR1	U	0.021	0.015	V1
SW120	01D0811-006	05/14/2001	RNS	VANADIUM	0.18	UG/L	TR1	U	0.18		V1
SW120	01D0811-006	05/14/2001	RNS	VANADIUM	0.18	UG/L	TR2	U	0.18		1
SW120	01D0811-006	05/14/2001	RNS	ZINC	2.00	UG/L	TR1	B	0.08		V1
SW120	01D0811-006	05/14/2001	RNS	ZINC	2.79	UG/L	TR2	B	0.08		1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
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Abbreviations

MG/L = Milligrams per liter

PCI/L = Picocuries per liter

TR1 = First analytical run

TR2 = Second analytical run, implies dilution (also DL1, DIL)

UG/L = Micrograms per liter (or µg/L)

(analyte)_D = dissolved fraction

Lab Qualifiers (note analyte group)

B = Detected concentration less than contract required detection limit (CR (list in order from highest confidence to lowest) but above instrument detection limit (IDL) (metals & other inorganics);

B = Analyte present in both sample and method blank (MB) (organics);

B = Activity in the method blank exceeds minimum detectable activity (MDA) (radionuclides)

J = Positively identified below sample quantification limit (SQL), result estimated (organics)

J = Estimated quantification (inorganics & radionuclides)

U = Target analyte not detected (all analytes)

Validation/Verification Qualifiers*

V/V1 = Valid

J/J1 = Estimated

UJ/UJ1 = Estimated at an elevated level of detection

1 = Unvalidated/Unverified member of TR1-TR2 pair
Other pair member should be Validated/Verified.

*Validation is a more thorough review of laboratory package than verification.

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
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B.3 PARCC EVALUATION

This section includes the PARCC tables referenced in Section 16 of the Report. Electronic copies of the tables are also given in the Appendix Tables directory on the CD-ROM disc. The tables are given in one Microsoft Excel file containing separate worksheets for each table.

Table B-4. Relative Percent Difference (RPDs) for the Metals Analyte Group

Location	Sample Date	Analyte	Real Result	Real Lab Qual	Real Validation	Dup Result	Dup Lab Qual	Dup Validation	Units	Absolute Value Real-Dup	Average ((Real+Dup)/2)	RPD% (AbsVal/Avg)x100
GS10	5/3/01	BERYLLIUM	0.23	B	V1	0.09	B	V1	UG/L	0.14	0.16	88
GS10	5/3/01	CADMIUM	0.13	B	J1	0.1	B	J1	UG/L	0.03	0.115	26
GS10	5/3/01	CHROMIUM	6.2		V1	1	B	V1	UG/L	5.2	3.6	144
GS50	5/5/01	ALUMINUM	8030		V1	8020		V1	UG/L	10	8025	0
GS50	5/5/01	ANTIMONY	1.7	B	V1	1.6	B	V1	UG/L	0.1	1.65	6
GS50	5/5/01	ARSENIC	5.2		V1	4.4	B	V1	UG/L	0.8	4.8	17
GS50	5/5/01	BARIUM	76.8	B	V1	77.4	B	V1	UG/L	0.6	77.1	1
GS50	5/5/01	BERYLLIUM	0.32	B	V1	0.3	B	V1	UG/L	0.02	0.31	6
GS50	5/5/01	CADMIUM	0.7	B	V1	0.74	B	V1	UG/L	0.04	0.72	6
GS50	5/5/01	CALCIUM	16800		V1	16700		V1	UG/L	100	16750	1
GS50	5/5/01	CHROMIUM	8.4		V1	8.3		V1	UG/L	0.1	8.35	1
GS50	5/5/01	COBALT	2.3	B	V1	2.2	B	V1	UG/L	0.1	2.25	4
GS50	5/5/01	COPPER	17.8		V1	17.2		V1	UG/L	0.6	17.5	3
GS50	5/5/01	IRON	6670		V1	6460		V1	UG/L	210	6565	3
GS50	5/5/01	LEAD	17.2		V1	16.7		V1	UG/L	0.5	16.95	3
GS50	5/5/01	LITHIUM	7	B	J1	6.9	B	J1	UG/L	0.1	6.95	1
GS50	5/5/01	MAGNESIUM	2500	B	V1	2450	B	V1	UG/L	50	2475	2
GS50	5/5/01	MANGANESE	107		V1	105		V1	UG/L	2	106	2
GS50	5/5/01	MOLYBDENUM	0.77	B	V1	0.94	B	V1	UG/L	0.17	0.855	20
GS50	5/5/01	NICKEL	6.7	B	V1	6.6	B	V1	UG/L	0.1	6.65	2
GS50	5/5/01	POTASSIUM	7360		J1	7250		J1	UG/L	110	7305	2
GS50	5/5/01	SELENIUM	0.86	B	J1	1.4	B	J1	UG/L	0.54	1.13	48
GS50	5/5/01	SILVER	0.25	U	V1	0.35	B	V1	UG/L	0.1	0.3	33
GS50	5/5/01	SODIUM	5920		V1	5870		V1	UG/L	50	5895	1
GS50	5/5/01	STRONTIUM	61.3	B	V1	60.7	B	V1	UG/L	0.6	61	1
GS50	5/5/01	TIN	1.4	B	V1	0.88	U	V1	UG/L	0.52	1.14	46

Location	Sample Date	Analyte	Real Result	Real Lab Qual	Real Validation	Dup Result	Dup Lab Qual	Dup Validation	Units	Absolute Value Real-Dup	Average ([Real+Dup]/2)	RPD% (AbsVal/Avg)x100
GS50	5/5/01	VANADIUM	19.5	B	V1	19.4	B	V1	UG/L	0.1	19.45	1
SW119	5/5/01	ALUMINUM	6510		V1	7710		V1	UG/L	1200	7110	17
SW119	5/5/01	ANTIMONY	1.3	B	V1	1.5	B	V1	UG/L	0.2	1.4	14
SW119	5/5/01	ARSENIC	3.1	B	V1	3	B	V1	UG/L	0.1	3.05	3
SW119	5/5/01	BARIUM	88	B	V1	91	B	V1	UG/L	3	89.5	3
SW119	5/5/01	BERYLLIUM	0.31	B	V1	0.34	B	V1	UG/L	0.03	0.325	9
SW119	5/5/01	CADMIUM	1.2		V1	1.2		V1	UG/L	0	1.2	0
SW119	5/5/01	CALCIUM	23200		V1	22900		V1	UG/L	300	23050	1
SW119	5/5/01	CHROMIUM	7.5		V1	8.7		V1	UG/L	1.2	8.1	15
SW119	5/5/01	COBALT	2	B	V1	2.1	B	V1	UG/L	0.1	2.05	5
SW119	5/5/01	COPPER	10.7		V1	11.6		V1	UG/L	0.9	11.15	8
SW119	5/5/01	IRON	5040		V1	5800		V1	UG/L	760	5420	14
SW119	5/5/01	LEAD	6.2		V1	5.7		V1	UG/L	0.5	5.95	8
SW119	5/5/01	LITHIUM	20.9	B	J1	22.1	B	J1	UG/L	1.2	21.5	6
SW119	5/5/01	MAGNESIUM	6100		V1	6250		V1	UG/L	150	6175	2
SW119	5/5/01	MANGANESE	75.1		V1	77.7		V1	UG/L	2.6	76.4	3
SW119	5/5/01	MOLYBDENUM	0.69	B	V1	0.98	B	V1	UG/L	0.29	0.835	35
SW119	5/5/01	NICKEL	6.1	B	V1	6.7	B	V1	UG/L	0.6	6.4	9
SW119	5/5/01	POTASSIUM	8520		J1	8780		J1	UG/L	260	8650	3
SW119	5/5/01	SELENIUM	2.3	B	J1	0.91	B	J1	UG/L	1.39	1.605	87
SW119	5/5/01	SODIUM	65300		V1	64200		V1	UG/L	1100	64750	2
SW119	5/5/01	STRONTIUM	170	B	V1	171	B	V1	UG/L	1	170.5	1
SW119	5/5/01	VANADIUM	15.6	B	V1	18	B	V1	UG/L	2.4	16.8	14
SW119	5/5/01	ZINC	79.8		V1	80.3		V1	UG/L	0.5	80.05	1
SW134	3/5/01	ALUMINUM	3970		V1	4370		V1	UG/L	400	4170	10
SW134	3/5/01	ARSENIC	1.5	B	V1	1.1	B	V1	UG/L	0.4	1.3	31
SW134	3/5/01	BARIUM	85.8	B	V1	82.4	B	V1	UG/L	3.4	84.1	4
SW134	3/5/01	BERYLLIUM	0.28	B	V1	0.28	B	V1	UG/L	0	0.28	0
SW134	3/5/01	CALCIUM	24400		V1	23100		V1	UG/L	1300	23750	5
SW134	3/5/01	CHROMIUM	12.4		V1	12.7		V1	UG/L	0.3	12.55	2
SW134	3/5/01	COBALT	1.4	B	V1	1.3	B	V1	UG/L	0.1	1.35	7
SW134	3/5/01	COPPER	4.7		V1	4.4		V1	UG/L	0.3	4.55	7
SW134	3/5/01	IRON	2810		V1	2710		V1	UG/L	100	2760	4

Location	Sample Date	Analyte	Real Result	Real Lab Qual	Real Validation	Dup Result	Dup Lab Qual	Dup Validation	Units	Absolute Value Real-Dup	Average ((Real+Dup)/2)	RPD% (AbsVal/Avg)x100
SW134	3/5/01	LEAD	2.6		V1	3		V1	UG/L	0.4	2.8	14
SW134	3/5/01	LITHIUM	5.8	B	J1	5.8	B	J1	UG/L	0	5.8	0
SW134	3/5/01	MAGNESIUM	5410		V1	5150		V1	UG/L	260	5280	5
SW134	3/5/01	MANGANESE	51.6		V1	44.6		V1	UG/L	7	48.1	15
SW134	3/5/01	MOLYBDENUM	1.2	B	V1	1.2	B	V1	UG/L	0	1.2	0
SW134	3/5/01	NICKEL	7.9	B	V1	7.7	B	V1	UG/L	0.2	7.8	3
SW134	3/5/01	POTASSIUM	1520	B	J1	1510	B	J1	UG/L	10	1515	1
SW134	3/5/01	SELENIUM	0.79	B	V1	0.78	U	V1	UG/L	0.01	0.785	1
SW134	3/5/01	SODIUM	11900		V1	11300		V1	UG/L	600	11600	5
SW134	3/5/01	STRONTIUM	142	B	V1	135	B	V1	UG/L	7	138.5	5
SW134	3/5/01	VANADIUM	9.8	B	V1	9.9	B	V1	UG/L	0.1	9.85	1
SW134	3/5/01	ZINC	12.6	B	V1	12.1	B	V1	UG/L	0.5	12.35	4

Table B-5. Matrix Spike Recoveries for Metals Analyte Group

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0184-001	ALUMINUM	112	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	ALUMINUM	132.8	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	ALUMINUM	58.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	ALUMINUM	94.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	ALUMINUM	134.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	ALUMINUM	115.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	ALUMINUM	309.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	ALUMINUM	243.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	ALUMINUM	180.1	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	ALUMINUM	197.5	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	ALUMINUM	103.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	ALUMINUM	163.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	ALUMINUM	597.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	ALUMINUM	101.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	ALUMINUM	108	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	ALUMINUM	527.3	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D1388-001	ALUMINUM	226.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	ANTIMONY	105.1	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	ANTIMONY	92.8	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	ANTIMONY	93.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	ANTIMONY	101	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	ANTIMONY	104.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	ANTIMONY	101.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	ANTIMONY	96.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	ANTIMONY	97.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	ANTIMONY	95.4	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	ANTIMONY	93.1	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	ANTIMONY	103.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	ANTIMONY	94.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	ANTIMONY	95.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	ANTIMONY	98.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	ANTIMONY	102.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	ANTIMONY	93.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	ANTIMONY	89.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	ARSENIC	106.3	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	ARSENIC	94.6	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	ARSENIC	92.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	ARSENIC	102.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	ARSENIC	107.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	ARSENIC	100.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	ARSENIC	95.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	ARSENIC	99.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	ARSENIC	97.7	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	ARSENIC	95.8	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	ARSENIC	100.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	ARSENIC	95.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	ARSENIC	98.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	ARSENIC	96.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	ARSENIC	103.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	ARSENIC	97	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D1388-001	ARSENIC	92.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	BARIUM	106.4	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	BARIUM	92.5	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	BARIUM	91.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	BARIUM	98.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	BARIUM	95	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	BARIUM	95.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	BARIUM	94	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	BARIUM	94.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	BARIUM	80.4	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	BARIUM	91	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	BARIUM	99.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	BARIUM	90.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	BARIUM	95.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	BARIUM	94	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	BARIUM	97.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	BARIUM	94.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	BARIUM	86.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	BERYLLIUM	106.6	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	BERYLLIUM	95.2	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	BERYLLIUM	94.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	BERYLLIUM	100.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0305-002	BERYLLIUM	98.3	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0329-003	BERYLLIUM	97.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0518-002	BERYLLIUM	95.9	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0535-002	BERYLLIUM	97.5	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0548-007	BERYLLIUM	96.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	BERYLLIUM	99.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-010	BERYLLIUM	97.8	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0737-004	BERYLLIUM	103.9	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0737-005	BERYLLIUM	99.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	BERYLLIUM	86.3	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	BERYLLIUM	96.5	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	BERYLLIUM	105.3	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0868-003	BERYLLIUM	100	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0905-001	BERYLLIUM	95.9	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0962-003	BERYLLIUM	92.9	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1000-001	BERYLLIUM	97.9	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1011-004	BERYLLIUM	95	%REC	MS1	1	CLP-SOW-TOTAL
01D1022-002	BERYLLIUM	90.3	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1083-001	BERYLLIUM	104.8	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1097-007	BERYLLIUM	100.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1133-002	BERYLLIUM	93.1	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1158-001	BERYLLIUM	107.1	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1158-002	BERYLLIUM	98.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	BERYLLIUM	103.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1237-006	BERYLLIUM	95.6	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1343-001	BERYLLIUM	99.4	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D1357-003	BERYLLIUM	99.4	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1357-004	BERYLLIUM	98.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	BERYLLIUM	92.3	%REC	MS1	1	CLP-SOW-TOTAL
02D0002-002	BERYLLIUM	97.7	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0184-001	CADMIUM	100.2	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	CADMIUM	89.8	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	CADMIUM	90.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	CADMIUM	94.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0305-002	CADMIUM	98.4	%REC	MS1	1	EPA-600-DISSOLVED
01D0329-003	CADMIUM	92.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0518-002	CADMIUM	92.8	%REC	MS1	1	EPA-600-DISSOLVED
01D0535-002	CADMIUM	90.8	%REC	MS1	1	EPA-600-DISSOLVED
01D0548-007	CADMIUM	89	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	CADMIUM	92	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-010	CADMIUM	90.5	%REC	MS1	1	EPA-600-DISSOLVED
01D0737-004	CADMIUM	94.2	%REC	MS1	1	EPA-600-DISSOLVED
01D0737-005	CADMIUM	91.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	CADMIUM	90.5	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	CADMIUM	87	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	CADMIUM	102.1	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0868-003	CADMIUM	97.8	%REC	MS1	1	EPA-600-DISSOLVED
01D0905-001	CADMIUM	96.4	%REC	MS1	1	EPA-600-DISSOLVED
01D0962-003	CADMIUM	94.2	%REC	MS1	1	EPA-600-DISSOLVED
01D1000-001	CADMIUM	96.6	%REC	MS1	1	EPA-600-DISSOLVED
01D1011-004	CADMIUM	87.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1022-002	CADMIUM	97.6	%REC	MS1	1	EPA-600-DISSOLVED
01D1083-002	CADMIUM	111.5	%REC	MS1	1	EPA-600-DISSOLVED
01D1097-007	CADMIUM	94.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1133-002	CADMIUM	87.6	%REC	MS1	1	EPA-600-DISSOLVED
01D1158-001	CADMIUM	103.5	%REC	MS1	1	EPA-600-DISSOLVED
01D1158-002	CADMIUM	97	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	CADMIUM	95.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1237-005	CADMIUM	99.8	%REC	MS1	1	EPA-600-DISSOLVED
01D1343-001	CADMIUM	100.3	%REC	MS1		EPA-600-DISSOLVED
01D1357-003	CADMIUM	102.1	%REC	MS1	1	EPA-600-DISSOLVED
01D1357-004	CADMIUM	93.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	CADMIUM	88.9	%REC	MS1	1	CLP-SOW-TOTAL
02D0002-001	CADMIUM	92.9	%REC	MS1	1	EPA-600-DISSOLVED
01D0184-001	CHROMIUM	101.5	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	CHROMIUM	92	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	CHROMIUM	92.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	CHROMIUM	97.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0305-002	CHROMIUM	95.8	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0329-003	CHROMIUM	94.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0518-002	CHROMIUM	92.5	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0535-002	CHROMIUM	94	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0548-007	CHROMIUM	91.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	CHROMIUM	95.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-010	CHROMIUM	93.7	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0737-004	CHROMIUM	95.6	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0737-005	CHROMIUM	94.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	CHROMIUM	83	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	CHROMIUM	91.2	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	CHROMIUM	101.9	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0868-003	CHROMIUM	95.5	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0905-001	CHROMIUM	92	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0962-003	CHROMIUM	90.3	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1000-001	CHROMIUM	95.2	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1011-004	CHROMIUM	89.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1022-002	CHROMIUM	90.4	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1083-001	CHROMIUM	101.1	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1097-007	CHROMIUM	99.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1133-002	CHROMIUM	89.1	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1158-001	CHROMIUM	103.4	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1158-002	CHROMIUM	96.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	CHROMIUM	99.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1237-006	CHROMIUM	93.8	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1343-001	CHROMIUM	96.4	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D1357-003	CHROMIUM	96.4	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D1357-004	CHROMIUM	96.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	CHROMIUM	90.2	%REC	MS1	1	CLP-SOW-TOTAL
02D0002-002	CHROMIUM	90.9	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0184-001	COBALT	99.9	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	COBALT	90.8	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	COBALT	92.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	COBALT	94.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	COBALT	90.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	COBALT	90.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	COBALT	93.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	COBALT	92	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	COBALT	80.4	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	COBALT	89.1	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	COBALT	101.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	COBALT	87.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	COBALT	94.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	COBALT	95.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	COBALT	96.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	COBALT	93.5	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D1388-001	COBALT	89.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	COPPER	106.3	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	COPPER	92.8	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	COPPER	92.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	COPPER	102	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	COPPER	102.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	COPPER	106.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	COPPER	96.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	COPPER	101.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	COPPER	84.7	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	COPPER	96	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	COPPER	98.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	COPPER	94.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	COPPER	100.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	COPPER	96.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	COPPER	102.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	COPPER	101.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	COPPER	90.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	IRON	120.6	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	IRON	101	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	IRON	18.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	IRON	97.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	IRON	122.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	IRON	90.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	IRON	132	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	IRON	63.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	IRON	99.2	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	IRON	19.4	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	IRON	100.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	IRON	62.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	IRON	488	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	IRON	97.9	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	IRON	101.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	IRON	236	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D1388-001	IRON	140.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	LEAD	99.5	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	LEAD	89.4	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	LEAD	90.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	LEAD	94.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	LEAD	90.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	LEAD	91.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	LEAD	90.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	LEAD	160.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	LEAD	89.4	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	LEAD	85.7	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	LEAD	100.9	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	LEAD	88.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	LEAD	94.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	LEAD	97.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	LEAD	97.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	LEAD	93.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	LEAD	89	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	LITHIUM	135.6	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	LITHIUM	107.1	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	LITHIUM	109.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	LITHIUM	120.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	LITHIUM	167.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	LITHIUM	169.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	LITHIUM	131.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	LITHIUM	146.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	LITHIUM	133.3	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	LITHIUM	134.8	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	LITHIUM	106.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	LITHIUM	132.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	LITHIUM	131.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	LITHIUM	101.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	LITHIUM	112.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	LITHIUM	120.6	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D1388-001	LITHIUM	108.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	MANGANESE	105.9	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	MANGANESE	94.3	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	MANGANESE	96.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	MANGANESE	93.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	MANGANESE	127.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	MANGANESE	93.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	MANGANESE	96.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	MANGANESE	92.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	MANGANESE	83.3	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	MANGANESE	62.4	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	MANGANESE	104.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	MANGANESE	93.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	MANGANESE	102	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	MANGANESE	99.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	MANGANESE	102.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	MANGANESE	97.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	MANGANESE	92.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	MERCURY	81	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0274-001	MERCURY	94	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	MERCURY	91	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	MERCURY	73	%REC	MS1	1	CLP-SOW-TOTAL
01D0348-004	MERCURY	74.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	MERCURY	93	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-002	MERCURY	91	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	MERCURY	106	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	MERCURY	105	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	MERCURY	99	%REC	MS1		CLP-SOW-TOTAL
01D1011-004	MERCURY	82	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-001	MERCURY	99	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	MERCURY	94	%REC	MS1	1	CLP-SOW-TOTAL
01D1237-007	MERCURY	91	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	MERCURY	96	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	MOLYBDENUM	101	%REC	MS1		EPA-600-TOTAL RECOVERABLE

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0199-001	MOLYBDENUM	89.4	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	MOLYBDENUM	88.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	MOLYBDENUM	99.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	MOLYBDENUM	95.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	MOLYBDENUM	92	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	MOLYBDENUM	91.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	MOLYBDENUM	92	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	MOLYBDENUM	91.4	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	MOLYBDENUM	88.7	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	MOLYBDENUM	103.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	MOLYBDENUM	89.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	MOLYBDENUM	95.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	MOLYBDENUM	97.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	MOLYBDENUM	99.9	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	MOLYBDENUM	94.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	MOLYBDENUM	89.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	NICKEL	96.8	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	NICKEL	89.4	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	NICKEL	89.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	NICKEL	91.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	NICKEL	87.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	NICKEL	86.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	NICKEL	91.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	NICKEL	89.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	NICKEL	78.2	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	NICKEL	84.8	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	NICKEL	101.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	NICKEL	87.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	NICKEL	94.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	NICKEL	96.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	NICKEL	95.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	NICKEL	93.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	NICKEL	89.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	SELENIUM	106.5	%REC	MS1		EPA-600-TOTAL RECOVERABLE

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0199-001	SELENIUM	95.1	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	SELENIUM	93.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	SELENIUM	102.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	SELENIUM	105.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	SELENIUM	101.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	SELENIUM	98.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	SELENIUM	98.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	SELENIUM	96.2	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	SELENIUM	95.5	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	SELENIUM	101	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	SELENIUM	93.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	SELENIUM	99.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	SELENIUM	97.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	SELENIUM	102.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	SELENIUM	98.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	SELENIUM	91.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	SILVER	106.6	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	SILVER	95.3	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	SILVER	94.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	SILVER	103.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0305-002	SILVER	114.4	%REC	MS1	1	EPA-600-DISSOLVED
01D0329-003	SILVER	110.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0518-002	SILVER	106	%REC	MS1	1	EPA-600-DISSOLVED
01D0535-002	SILVER	106.1	%REC	MS1	1	EPA-600-DISSOLVED
01D0548-007	SILVER	105.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	SILVER	97.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-010	SILVER	98.4	%REC	MS1	1	EPA-600-DISSOLVED
01D0737-004	SILVER	101.6	%REC	MS1	1	EPA-600-DISSOLVED
01D0737-005	SILVER	101.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	SILVER	87.3	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	SILVER	99.9	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	SILVER	100.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0868-003	SILVER	105.2	%REC	MS1	1	EPA-600-DISSOLVED
01D0905-001	SILVER	103.3	%REC	MS1	1	EPA-600-DISSOLVED

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0962-003	SILVER	104.2	%REC	MS1	1	EPA-600-DISSOLVED
01D1000-001	SILVER	102.9	%REC	MS1	1	EPA-600-DISSOLVED
01D1011-004	SILVER	96.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1022-002	SILVER	103.9	%REC	MS1	1	EPA-600-DISSOLVED
01D1083-002	SILVER	106.6	%REC	MS1	1	EPA-600-DISSOLVED
01D1097-007	SILVER	100.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1133-002	SILVER	89.7	%REC	MS1	1	EPA-600-DISSOLVED
01D1158-001	SILVER	96.9	%REC	MS1	1	EPA-600-DISSOLVED
01D1158-002	SILVER	96	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	SILVER	102.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1237-005	SILVER	102.6	%REC	MS1	1	EPA-600-DISSOLVED
01D1343-001	SILVER	102.1	%REC	MS1		EPA-600-DISSOLVED
01D1357-003	SILVER	100.3	%REC	MS1	1	EPA-600-DISSOLVED
01D1357-004	SILVER	97.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	SILVER	91	%REC	MS1	1	CLP-SOW-TOTAL
02D0002-001	SILVER	102.2	%REC	MS1	1	EPA-600-DISSOLVED
01D0184-001	STRONTIUM	113.6	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	STRONTIUM	92.4	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	STRONTIUM	91.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	STRONTIUM	82.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	STRONTIUM	106.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	STRONTIUM	83.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	STRONTIUM	94.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	STRONTIUM	95.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	STRONTIUM	90.5	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	STRONTIUM	89.8	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	STRONTIUM	99.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	STRONTIUM	92.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	STRONTIUM	96.9	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	STRONTIUM	96.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	STRONTIUM	103.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	STRONTIUM	98.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	STRONTIUM	89.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	THALLIUM	101	%REC	MS1		EPA-600-TOTAL RECOVERABLE

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0199-001	THALLIUM	91	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	THALLIUM	91.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	THALLIUM	97.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	THALLIUM	84.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	THALLIUM	95	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	THALLIUM	94.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	THALLIUM	85.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	THALLIUM	86.6	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	THALLIUM	86.2	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	THALLIUM	100.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	THALLIUM	82.2	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	THALLIUM	95	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	THALLIUM	97.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	THALLIUM	95.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	THALLIUM	94.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	THALLIUM	89.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	TIN	101.8	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	TIN	91.1	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	TIN	91.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	TIN	98.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	TIN	97.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	TIN	97.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	TIN	94.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	TIN	95.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	TIN	93.9	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	TIN	91.2	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	TIN	102.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	TIN	90.9	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	TIN	97.9	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	TIN	97.9	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	TIN	102	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	TIN	95.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	TIN	92.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	VANADIUM	104.9	%REC	MS1		EPA-600-TOTAL RECOVERABLE

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0199-001	VANADIUM	93.8	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	VANADIUM	94.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	VANADIUM	101.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	VANADIUM	97.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	VANADIUM	95	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	VANADIUM	97	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	VANADIUM	98.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	VANADIUM	83.8	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	VANADIUM	94.3	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	VANADIUM	101.7	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	VANADIUM	92.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	VANADIUM	100.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	VANADIUM	96.6	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	VANADIUM	100.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	VANADIUM	96.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	VANADIUM	89.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	ZINC	104.4	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0199-001	ZINC	92.4	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	ZINC	94.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0289-001	ZINC	97	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	ZINC	109.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	ZINC	93.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	ZINC	96.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	ZINC	92.6	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	ZINC	83.9	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	ZINC	82.4	%REC	MS1		CLP-SOW-TOTAL
01D0811-006	ZINC	101.5	%REC	MS1	1	CLP-SOW-TOTAL
01D1011-004	ZINC	88	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	ZINC	101.1	%REC	MS1	1	CLP-SOW-TOTAL
01D1158-002	ZINC	96.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1210-001	ZINC	102	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	ZINC	98.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	ZINC	90.3	%REC	MS1	1	CLP-SOW-TOTAL

Table B-6. Matrix Spike Recoveries the Metals Analyte Group that Exceeded the QC Criteria

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0199-001	ALUMINUM	132.8	%REC	MS1	V1	EPA-600-TOTAL RECOVERABLE
01D0237-001	ALUMINUM	58.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	ALUMINUM	134.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	ALUMINUM	309.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	ALUMINUM	243.4	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	ALUMINUM	180.1	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	ALUMINUM	197.5	%REC	MS1		CLP-SOW-TOTAL
01D1011-004	ALUMINUM	163.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	ALUMINUM	597.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	ALUMINUM	527.3	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	ALUMINUM	226.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0362-003	BERYLLIUM	0.03	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0548-006	BERYLLIUM	13.1122	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0664-001	BERYLLIUM	12.8275	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0362-003	CADMIUM	0.1985	%REC	MS1	1	EPA-600-DISSOLVED
01D0548-006	CADMIUM	12.7898	%REC	MS1	1	EPA-600-DISSOLVED
01D0664-001	CADMIUM	11.8978	%REC	MS1	1	EPA-600-DISSOLVED
01D0362-003	CHROMIUM	1.029	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0548-006	CHROMIUM	55.5175	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0664-001	CHROMIUM	51.1622	%REC	MS1	1	EPA-600-TOTAL RECOVERABLE
01D0237-001	IRON	18.9	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	IRON	132	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	IRON	63.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0776-009	IRON	19.4	%REC	MS1		CLP-SOW-TOTAL
01D1011-004	IRON	62.4	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	IRON	488	%REC	MS1	1	CLP-SOW-TOTAL
01D1357-004	IRON	236	%REC	MS1	1	CLP-SOW-TOTAL
01D1388-001	IRON	140.8	%REC	MS1	1	CLP-SOW-TOTAL
01D0737-005	LEAD	160.3	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	LITHIUM	135.6	%REC	MS1		EPA-600-TOTAL RECOVERABLE
01D0329-003	LITHIUM	167.1	%REC	MS1	1	CLP-SOW-TOTAL
01D0548-007	LITHIUM	169.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0684-004	LITHIUM	131.7	%REC	MS1	1	CLP-SOW-TOTAL

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D0737-005	LITHIUM	146.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0753-001	LITHIUM	133.3	%REC	MS1		CLP-SOW-TOTAL
01D0776-009	LITHIUM	134.8	%REC	MS1		CLP-SOW-TOTAL
01D1011-004	LITHIUM	132.8	%REC	MS1	1	CLP-SOW-TOTAL
01D1097-007	LITHIUM	131.5	%REC	MS1	1	CLP-SOW-TOTAL
01D0329-003	MANGANESE	127.2	%REC	MS1	1	CLP-SOW-TOTAL
01D0776-009	MANGANESE	62.4	%REC	MS1		CLP-SOW-TOTAL
01D0329-003	MERCURY	73	%REC	MS1	1	CLP-SOW-TOTAL
01D0348-004	MERCURY	74.7	%REC	MS1	1	CLP-SOW-TOTAL
01D0184-001	SILICON	228.3	%REC	MS1	1	EPA 200.7
01D0199-001	SILICON	265.3	%REC	MS1	1	EPA 200.7
01D0362-003	SILVER	0.275	%REC	MS1	1	EPA-600-DISSOLVED
01D0548-006	SILVER	12.9435	%REC	MS1	1	EPA-600-DISSOLVED
01D0664-001	SILVER	13.4598	%REC	MS1	1	EPA-600-DISSOLVED

Table B-7. Rinsate Sample Results for Metals Analyte Group

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Validation	Test Method
GS10	10/20/00	BERYLLIUM	0.02	UG/L	U	0.02	V	EPA-600-TOTAL RECOVERABLE
GS10	10/20/00	CADMIUM	0.08	UG/L	U	0.08	V	EPA-600-DISSOLVED
GS10	10/20/00	CHROMIUM	0.22	UG/L	U	0.22	V	EPA-600-TOTAL RECOVERABLE
GS10	10/20/00	SILVER	0.28	UG/L	U	0.28	V	EPA-600-DISSOLVED
GS10	7/27/01	BERYLLIUM	0.05	UG/L	U	0.05	J1	EPA-600-TOTAL RECOVERABLE
GS10	7/27/01	CADMIUM	0.08	UG/L	U	0.08	J1	EPA-600-DISSOLVED
GS10	7/27/01	CHROMIUM	0.22	UG/L	U	0.22	J1	EPA-600-TOTAL RECOVERABLE
GS10	7/27/01	SILVER	0.25	UG/L	U	0.25	J1	EPA-600-DISSOLVED
GS43	12/4/00	ALUMINUM	5.7	UG/L	U	5.7	J1	CLP-SOW-TOTAL
GS43	12/4/00	ANTIMONY	0.58	UG/L	U	0.58	V1	CLP-SOW-TOTAL
GS43	12/4/00	ARSENIC	0.6	UG/L	U	0.6	J1	CLP-SOW-TOTAL
GS43	12/4/00	BARIUM	0.34	UG/L	B	0.05	V1	CLP-SOW-TOTAL
GS43	12/4/00	BERYLLIUM	0.02	UG/L	U	0.02	J1	CLP-SOW-TOTAL
GS43	12/4/00	CADMIUM	0.08	UG/L	U	0.08	J1	CLP-SOW-TOTAL
GS43	12/4/00	CALCIUM	118	UG/L	B	4.8	V1	CLP-SOW-TOTAL
GS43	12/4/00	CHROMIUM	0.37	UG/L	B	0.15	J1	CLP-SOW-TOTAL

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Validation	Test Method
GS43	12/4/00	COBALT	0.22	UG/L	U	0.22	V1	CLP-SOW-TOTAL
GS43	12/4/00	COPPER	0.22	UG/L	U	0.22	V1	CLP-SOW-TOTAL
GS43	12/4/00	IRON	6.6	UG/L	B	5.4	V1	CLP-SOW-TOTAL
GS43	12/4/00	LEAD	0.52	UG/L	U	0.52	V1	CLP-SOW-TOTAL
GS43	12/4/00	LITHIUM	0.05	UG/L	U	0.05	J1	CLP-SOW-TOTAL
GS43	12/4/00	MAGNESIUM	16.8	UG/L	B	1.7	V1	CLP-SOW-TOTAL
GS43	12/4/00	MANGANESE	0.77	UG/L	B	0.05	V1	CLP-SOW-TOTAL
GS43	12/4/00	MERCURY	0.1	UG/L	U	0.1	V1	CLP-SOW-TOTAL
GS43	12/4/00	MERCURY	0.1	UG/L	U	0.1	1	CLP-SOW-TOTAL
GS43	12/4/00	MOLYBDENUM	0.25	UG/L	U	0.25	V1	CLP-SOW-TOTAL
GS43	12/4/00	NICKEL	1.1	UG/L	B	0.22	V1	CLP-SOW-TOTAL
GS43	12/4/00	POTASSIUM	10.2	UG/L	U	10.2	V1	CLP-SOW-TOTAL
GS43	12/4/00	SELENIUM	0.82	UG/L	U	0.82	V1	CLP-SOW-TOTAL
GS43	12/4/00	SILVER	0.28	UG/L	U	0.28	V1	CLP-SOW-TOTAL
GS43	12/4/00	SODIUM	85.1	UG/L	B	1	UJ1	CLP-SOW-TOTAL
GS43	12/4/00	STRONTIUM	0.74	UG/L	B	0.02	V1	CLP-SOW-TOTAL
GS43	12/4/00	THALLIUM	1	UG/L	U	1	V1	CLP-SOW-TOTAL
GS43	12/4/00	TIN	0.65	UG/L	U	0.65	V1	CLP-SOW-TOTAL
GS43	12/4/00	VANADIUM	0.2	UG/L	U	0.2	V1	CLP-SOW-TOTAL
GS43	12/4/00	ZINC	14	UG/L	B	0.1	V1	CLP-SOW-TOTAL
GS44	7/27/01	ALUMINUM	4	UG/L	U	4	J1	CLP-SOW-TOTAL
GS44	7/27/01	ANTIMONY	0.58	UG/L	U	0.58	UJ1	CLP-SOW-TOTAL
GS44	7/27/01	ARSENIC	0.98	UG/L	U	0.98	V1	CLP-SOW-TOTAL
GS44	7/27/01	BARIUM	0.12	UG/L	B	0.02	UJ1	CLP-SOW-TOTAL
GS44	7/27/01	BERYLLIUM	0.05	UG/L	U	0.05	V1	CLP-SOW-TOTAL
GS44	7/27/01	CADMIUM	0.09	UG/L	B	0.08	V1	CLP-SOW-TOTAL
GS44	7/27/01	CALCIUM	24.5	UG/L	B	2	UJ1	CLP-SOW-TOTAL
GS44	7/27/01	CHROMIUM	0.35	UG/L	U	0.35	V1	CLP-SOW-TOTAL
GS44	7/27/01	COBALT	0.22	UG/L	U	0.22	V1	CLP-SOW-TOTAL
GS44	7/27/01	COPPER	0.12	UG/L	U	0.12	V1	CLP-SOW-TOTAL
GS44	7/27/01	IRON	3.9	UG/L	U	3.9	V1	CLP-SOW-TOTAL
GS44	7/27/01	LEAD	1.5	UG/L	B	0.6	V1	CLP-SOW-TOTAL
GS44	7/27/01	LITHIUM	0.22	UG/L	B	0.02	UJ1	CLP-SOW-TOTAL
GS44	7/27/01	MAGNESIUM	6.6	UG/L	B	2	V1	CLP-SOW-TOTAL
GS44	7/27/01	MANGANESE	0.08	UG/L	B	0.02	UJ1	CLP-SOW-TOTAL

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Validation	Test Method
GS44	7/27/01	MERCURY	0.1	UG/L	U	0.1	V1	CLP-SOW-TOTAL
GS44	7/27/01	MOLYBDENUM	0.25	UG/L	U	0.25	V1	CLP-SOW-TOTAL
GS44	7/27/01	NICKEL	0.42	UG/L	U	0.42	V1	CLP-SOW-TOTAL
GS44	7/27/01	POTASSIUM	10.2	UG/L	B	2.7	J1	CLP-SOW-TOTAL
GS44	7/27/01	SELENIUM	0.8	UG/L	U	0.8	V1	CLP-SOW-TOTAL
GS44	7/27/01	SILVER	0.12	UG/L	U	0.12	J1	CLP-SOW-TOTAL
GS44	7/27/01	SODIUM	44.9	UG/L	B	0.4	UJ1	CLP-SOW-TOTAL
GS44	7/27/01	STRONTIUM	0.21	UG/L	B	0.02	V1	CLP-SOW-TOTAL
GS44	7/27/01	THALLIUM	0.85	UG/L	U	0.85	V1	CLP-SOW-TOTAL
GS44	7/27/01	TIN	0.98	UG/L	U	0.98	V1	CLP-SOW-TOTAL
GS44	7/27/01	VANADIUM	0.12	UG/L	U	0.12	V1	CLP-SOW-TOTAL
GS44	7/27/01	ZINC	1.1	UG/L	B	0.1	UJ1	CLP-SOW-TOTAL
SW093	10/20/00	BERYLLIUM	0.02	UG/L	U	0.02	V	EPA-600-TOTAL RECOVERABLE
SW093	10/20/00	CADMIUM	0.08	UG/L	U	0.08	V	EPA-600-DISSOLVED
SW093	10/20/00	CHROMIUM	0.22	UG/L	U	0.22	V	EPA-600-TOTAL RECOVERABLE
SW093	10/20/00	SILVER	0.28	UG/L	U	0.28	V	EPA-600-DISSOLVED
SW093	7/27/01	BERYLLIUM	0.05	UG/L	U	0.05	J1	EPA-600-TOTAL RECOVERABLE
SW093	7/27/01	CADMIUM	0.08	UG/L	U	0.08	J1	EPA-600-DISSOLVED
SW093	7/27/01	CHROMIUM	0.22	UG/L	U	0.22	J1	EPA-600-TOTAL RECOVERABLE
SW093	7/27/01	SILVER	0.25	UG/L	U	0.25	J1	EPA-600-DISSOLVED
SW120	5/14/01	ALUMINUM	3.2	UG/L	U	3.2	V1	CLP-SOW-TOTAL
SW120	5/14/01	ANTIMONY	0.48	UG/L	U	0.48	V1	CLP-SOW-TOTAL
SW120	5/14/01	ARSENIC	0.58	UG/L	U	0.58	J1	CLP-SOW-TOTAL
SW120	5/14/01	BARIUM	0.2	UG/L	B	0.05	UJ1	CLP-SOW-TOTAL
SW120	5/14/01	BERYLLIUM	0.05	UG/L	U	0.05	V1	CLP-SOW-TOTAL
SW120	5/14/01	CADMIUM	0.08	UG/L	U	0.08	V1	CLP-SOW-TOTAL
SW120	5/14/01	CALCIUM	38.1	UG/L	B	2	V1	CLP-SOW-TOTAL
SW120	5/14/01	CHROMIUM	0.24	UG/L	B	0.22	V1	CLP-SOW-TOTAL
SW120	5/14/01	COBALT	0.2	UG/L	U	0.2	V1	CLP-SOW-TOTAL
SW120	5/14/01	COPPER	0.56	UG/L	B	0.18	UJ1	CLP-SOW-TOTAL
SW120	5/14/01	IRON	4.9	UG/L	B	3.9	V1	CLP-SOW-TOTAL
SW120	5/14/01	LEAD	0.65	UG/L	U	0.65	V1	CLP-SOW-TOTAL
SW120	5/14/01	LITHIUM	0.18	UG/L	B	0.05	UJ1	CLP-SOW-TOTAL
SW120	5/14/01	MAGNESIUM	7.8	UG/L	B	2.2	V1	CLP-SOW-TOTAL
SW120	5/14/01	MANGANESE	0.08	UG/L	B	0.02	UJ1	CLP-SOW-TOTAL

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Validation	Test Method
SW120	5/14/01	MERCURY	0.1	UG/L	U	0.1	V1	CLP-SOW-TOTAL
SW120	5/14/01	MOLYBDENUM	0.64	UG/L	B	0.25	V1	CLP-SOW-TOTAL
SW120	5/14/01	NICKEL	0.36	UG/L	B	0.3	UJ1	CLP-SOW-TOTAL
SW120	5/14/01	SELENIUM	0.65	UG/L	U	0.65	J1	CLP-SOW-TOTAL
SW120	5/14/01	SILVER	0.25	UG/L	U	0.25	V1	CLP-SOW-TOTAL
SW120	5/14/01	SODIUM	55.6	UG/L	B	0.42	UJ1	CLP-SOW-TOTAL
SW120	5/14/01	STRONTIUM	0.2	UG/L	B	0.02	V1	CLP-SOW-TOTAL
SW120	5/14/01	THALLIUM	0.98	UG/L	U	0.98	V1	CLP-SOW-TOTAL
SW120	5/14/01	TIN	0.88	UG/L	U	0.88	V1	CLP-SOW-TOTAL
SW120	5/14/01	VANADIUM	0.18	UG/L	U	0.18	V1	CLP-SOW-TOTAL
SW120	5/14/01	ZINC	2	UG/L	B	0.08	V1	CLP-SOW-TOTAL

Table B-8. Duplicate Error Ratio (DERs) for Radionuclide Analyte Group

Location	Sample Date	Analyte	Real Result	Real 2σ Error	Real Qual	Real Validation	Dup Result	Dup 2σ Error	Dup Qual	Dup Validation	Units	AbsVal [Real-Dup]	SqRt $\sqrt{(\text{Real } 2\sigma)^2 + (\text{Dup } 2\sigma)^2}$	DER (AbsVal/SqRt)
GS08	11/20/00	PLUTONIUM-239/240	0.006	0.008	U	V	0.008	0.009	J	V	PCI/L	0.003	0.01	0.21
GS08	11/20/00	URANIUM-233,-234	0.460	0.044	J	V	0.450	0.048	J	V	PCI/L	0.010	0.07	0.15
GS08	11/20/00	URANIUM-235	0.018	0.009	J	V	0.004	0.006	U	V	PCI/L	0.014	0.01	1.22
GS08	11/20/00	URANIUM-238	0.420	0.042	J	V	0.380	0.044	J	V	PCI/L	0.040	0.06	0.66
GS10	5/3/01	AMERICIUM-241	0.043	0.032		V1	0.099	0.054		V1	PCI/L	0.056	0.06	0.89
GS10	5/3/01	PLUTONIUM-239/240	0.058	0.037		V1	0.060	0.041		V1	PCI/L	0.002	0.06	0.04
GS10	5/3/01	URANIUM-233,-234	0.369	0.111	J	V1	0.467	0.140	J	V1	PCI/L	0.098	0.18	0.55
GS10	5/3/01	URANIUM-235	0.006	0.014	U	V1	0.033	0.030	J	V1	PCI/L	0.027	0.03	0.82
GS10	5/3/01	URANIUM-238	0.445	0.129	J	V1	0.518	0.151	J	V1	PCI/L	0.073	0.20	0.37
GS50	5/5/01	AMERICIUM-241	0.434	0.143		V1	0.449	0.143		V1	PCI/L	0.015	0.20	0.07
GS50	5/5/01	PLUTONIUM-239/240	0.241	0.090		V1	0.208	0.079		V1	PCI/L	0.033	0.12	0.28
GS50	5/5/01	URANIUM-233,-234	0.207	0.080	J	V1	0.240	0.090	J	V1	PCI/L	0.033	0.12	0.27
GS50	5/5/01	URANIUM-238	0.205	0.078	J	V1	0.217	0.084	J	V1	PCI/L	0.012	0.11	0.10
SW022	5/4/01	AMERICIUM-241	0.015	0.021	U	V1	0.053	0.041		V1	PCI/L	0.038	0.05	0.82
SW022	5/4/01	PLUTONIUM-239/240	0.068	0.044		V1	0.080	0.052		V1	PCI/L	0.012	0.07	0.18

Location	Sample Date	Analyte	Real Result	Real 2 σ Error	Real Qual	Real Validation	Dup Result	Dup 2 σ Error	Dup Qual	Dup Validation	Units	AbsVal [Real-Dup]	SqRt $\sqrt{(\text{Real } 2\sigma)^2 + (\text{Dup } 2\sigma)^2}$	DER (AbsVal/SqRt)
SW022	5/4/01	URANIUM-233,-234	0.303	0.102	J	V1	0.206	0.079	J	V1	PCI/L	0.097	0.13	0.75
SW022	5/4/01	URANIUM-235	0.014	0.021	U	V1	0.020	0.025	J	V1	PCI/L	0.006	0.03	0.18
SW022	5/4/01	URANIUM-238	0.324	0.107	J	V1	0.314	0.105	J	V1	PCI/L	0.010	0.15	0.07
SW119	5/5/01	AMERICIUM-241	0.447	0.148		V1	0.320	0.113		V1	PCI/L	0.127	0.19	0.68
SW119	5/5/01	PLUTONIUM-239/240	0.273	0.096		V1	0.326	0.110		V1	PCI/L	0.053	0.15	0.36
SW119	5/5/01	URANIUM-233,-234	1.450	0.364		V1	1.670	0.420		V1	PCI/L	0.220	0.56	0.40
SW119	5/5/01	URANIUM-235	0.040	0.035	J	V1	0.081	0.056	J	V1	PCI/L	0.041	0.07	0.62
SW119	5/5/01	URANIUM-238	1.080	0.279		V1	1.080	0.287		V1	PCI/L	0.000	0.40	0.00

Table B-9. Rinsate Sample Results for the Radionuclide Analyte Group

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Error	Validation	Test Method
995POE	6/29/01	AMERICIUM-241	0.001	PCI/L	U	0.016	0.009	V1	ALPHA SPEC
995POE	6/29/01	PLUTONIUM-239/240	0.003	PCI/L	U	0.024	0.030	V1	ALPHA SPEC
995POE	6/29/01	TRITIUM	-279	PCI/L	U	310	157		LIQUID SCINTILLATION COUNTER
995POE	6/29/01	URANIUM-233,-234	0.043	PCI/L	J	0.022	0.033	V1	ALPHA SPEC
995POE	6/29/01	URANIUM-235	0.009	PCI/L	U	0.017	0.017	V1	ALPHA SPEC
995POE	6/29/01	URANIUM-238	0.042	PCI/L	J	0.019	0.031	V1	ALPHA SPEC
GS01	5/14/01	AMERICIUM-241	-0.003	PCI/L	U	0.024	0.003	V1	ALPHA SPEC
GS01	5/14/01	PLUTONIUM-239/240	-0.006	PCI/L	U	0.021	0.024	V1	ALPHA SPEC
GS01	5/14/01	TRITIUM	-225	PCI/L	U	323	167	V1	LIQUID SCINTILLATION COUNTER
GS03	12/4/00	AMERICIUM-241	0.002	PCI/L	U	0.009	0.007	V	ALPHA SPEC
GS03	12/4/00	PLUTONIUM-239/240	-0.001	PCI/L	U	0.011	0.013	V	ALPHA SPEC
GS03	12/4/00	TRITIUM	100	PCI/L	U	270	160		LIQUID SCINTILLATION COUNTER
GS03	7/27/01	AMERICIUM-241	-0.005	PCI/L	U	0.018	0.004	V1	ALPHA SPEC
GS03	7/27/01	PLUTONIUM-239/240	-0.002	PCI/L	U	0.016	0.002	V1	ALPHA SPEC
GS03	7/27/01	TRITIUM	68	PCI/L	U	201	118	V1	LIQUID SCINTILLATION COUNTER
GS10	10/20/00	AMERICIUM-241	-0.002	PCI/L	U	0.008	0.008	V1	ALPHA SPEC
GS10	10/20/00	PLUTONIUM-239/240	0.002	PCI/L	U	0.008	0.007	V1	ALPHA SPEC
GS10	10/20/00	URANIUM-233,-234	0.007	PCI/L	U	0.007	0.007	V1	ALPHA SPEC
GS10	10/20/00	URANIUM-235	-0.001	PCI/L	U	0.005	0.000	V1	ALPHA SPEC

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Error	Validation	Test Method
GS10	10/20/00	URANIUM-238	-0.002	PCI/L	U	0.008	0.003	V1	ALPHA SPEC
GS10	7/27/01	AMERICIUM-241	0.000	PCI/L	U	0.018	0.011	V1	ALPHA SPEC
GS10	7/27/01	PLUTONIUM-239/240	-0.009	PCI/L	U	0.015	0.012	V1	ALPHA SPEC
GS10	7/27/01	URANIUM-233,-234	0.016	PCI/L	U	0.020	0.022	V1	ALPHA SPEC
GS10	7/27/01	URANIUM-235	-0.002	PCI/L	U	0.016	0.002	V1	ALPHA SPEC
GS10	7/27/01	URANIUM-238	0.006	PCI/L	U	0.017	0.015	V1	ALPHA SPEC
GS31	6/29/01	AMERICIUM-241	0.002	PCI/L	U	0.018	0.010	V1	ALPHA SPEC
GS31	6/29/01	PLUTONIUM-239/240	-0.006	PCI/L	U	0.017	0.006	V1	ALPHA SPEC
GS31	6/29/01	URANIUM-233,-234	0.023	PCI/L	J	0.022	0.026	V1	ALPHA SPEC
GS31	6/29/01	URANIUM-235	0.010	PCI/L	U	0.017	0.017	V1	ALPHA SPEC
GS31	6/29/01	URANIUM-238	0.022	PCI/L	J	0.019	0.024	V1	ALPHA SPEC
GS38	5/30/01	AMERICIUM-241	0.007	PCI/L	U	0.019	0.014	V1	ALPHA SPEC
GS38	5/30/01	PLUTONIUM-239/240	0.006	PCI/L	U	0.025	0.015	V1	ALPHA SPEC
GS43	12/4/00	AMERICIUM-241	-0.001	PCI/L	U	0.010	0.009	V1	ALPHA SPEC
GS43	12/4/00	PLUTONIUM-239/240	-0.005	PCI/L	U	0.007	0.006	V1	ALPHA SPEC
GS43	12/4/00	URANIUM-233,-234	-0.001	PCI/L	U	0.007	0.004	V1	ALPHA SPEC
GS43	12/4/00	URANIUM-235	-0.001	PCI/L	U	0.005	0.000	V1	ALPHA SPEC
GS43	12/4/00	URANIUM-238	-0.003	PCI/L	U	0.010	0.002	V1	ALPHA SPEC
GS44	7/27/01	AMERICIUM-241	0.005	PCI/L	U	0.028	0.017	V1	ALPHA SPEC
GS44	7/27/01	PLUTONIUM-239/240	0.010	PCI/L	U	0.017	0.016	V1	ALPHA SPEC
GS44	7/27/01	TRITIUM	135	PCI/L	U	200	113	V1	LIQUID SCINTILLATION COUNTER
GS44	7/27/01	URANIUM-233,-234	0.009	PCI/L	U	0.020	0.018	V1	ALPHA SPEC
GS44	7/27/01	URANIUM-235	0.003	PCI/L	U	0.016	0.011	V1	ALPHA SPEC
GS44	7/27/01	URANIUM-238	0.016	PCI/L	U	0.017	0.019	V1	ALPHA SPEC
SW022	5/30/01	AMERICIUM-241	0.042	PCI/L		0.021	0.034	V1	ALPHA SPEC
SW022	5/30/01	PLUTONIUM-239/240	0.005	PCI/L	U	0.023	0.013	V1	ALPHA SPEC
SW022	5/30/01	URANIUM-233,-234	0.009	PCI/L	U	0.020	0.018	V1	ALPHA SPEC
SW022	5/30/01	URANIUM-235	-0.001	PCI/L	U	0.017	0.001	V1	ALPHA SPEC
SW022	5/30/01	URANIUM-238	0.001	PCI/L	U	0.019	0.010	V1	ALPHA SPEC
SW093	10/20/00	AMERICIUM-241	-0.015	PCI/L	U	0.007	0.010	V1	ALPHA SPEC
SW093	10/20/00	PLUTONIUM-239/240	-0.007	PCI/L	U	0.011	0.004	V1	ALPHA SPEC
SW093	10/20/00	URANIUM-233,-234	0.000	PCI/L	U	0.007	0.008	V1	ALPHA SPEC
SW093	10/20/00	URANIUM-235	0.001	PCI/L	U	0.005	0.004	V1	ALPHA SPEC
SW093	10/20/00	URANIUM-238	0.002	PCI/L	U	0.008	0.005	V1	ALPHA SPEC

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Error	Validation	Test Method
SW093	7/27/01	AMERICIUM-241	-0.001	PCI/L	U	0.017	0.010	V1	ALPHA SPEC
SW093	7/27/01	PLUTONIUM-239/240	-0.004	PCI/L	U	0.016	0.004	V1	ALPHA SPEC
SW093	7/27/01	URANIUM-233,-234	-0.004	PCI/L	U	0.020	0.009	V1	ALPHA SPEC
SW093	7/27/01	URANIUM-235	0.003	PCI/L	U	0.015	0.010	V1	ALPHA SPEC
SW093	7/27/01	URANIUM-238	0.012	PCI/L	U	0.017	0.017	V1	ALPHA SPEC
SW120	5/14/01	AMERICIUM-241	0.009	PCI/L	U	0.022	0.016	V1	ALPHA SPEC
SW120	5/14/01	PLUTONIUM-239/240	0.015	PCI/L	U	0.020	0.029	V1	ALPHA SPEC
SW120	5/14/01	TRITIUM	-309	PCI/L	U	317	158	V1	LIQUID SCINTILLATION COUNTER
SW120	5/14/01	URANIUM-233,-234	0.020	PCI/L	J	0.018	0.023	V1	ALPHA SPEC
SW120	5/14/01	URANIUM-235	-0.004	PCI/L	U	0.017	0.005	V1	ALPHA SPEC
SW120	5/14/01	URANIUM-238	0.002	PCI/L	U	0.021	0.015	V1	ALPHA SPEC

Table B-10. Relative Percent Difference (RPDs) for the Water Quality Parameters Analyte Group

Location	Sample Date	Analyte	Real Result	Real Lab Qual	Real Validation	Dup Result	Dup Lab Qual	Dup Validation	Units	Absolute Value Real-Dup	Average (Real+Dup)/2	RPD% (AbsVal/Avg)X100
GS10	5/3/01	HARDNESS, TOTAL	62		V1	64		V1	MG/L	2	63	3
GS10	5/3/01	TOTAL SUSPENDED SOLIDS	48		V1	71		V1	MG/L	23	59.5	39
SW022	5/4/01	TOTAL SUSPENDED SOLIDS	55		V1	43		V1	MG/L	12	49	24
SW134	3/5/01	Alkalinity, Total as CaCO3	84		V1	88		V1	MG/L	4	86	5
SW134	3/5/01	CHLORIDE	8.9	N	V1	8.9	N	V1	MG/L	0	8.9	0
SW134	3/5/01	FLUORIDE	0.4		V1	0.4		V1	MG/L	0	0.4	0
SW134	3/5/01	SULFATE	30		V1	30		V1	MG/L	0	30	0
SW134	3/5/01	TOTAL DISSOLVED SOLIDS	200		V1	190		V1	MG/L	10	195	5
SW134	3/5/01	TOTAL SUSPENDED SOLIDS	93		V1	78		V1	MG/L	15	85.5	18

Table B-11. Matrix Spike Recovery for Water Quality Parameter Analyte Group

Sample Number	Analyte	Result	Units	Result Type	Validation	Test Method
01D1237-008	CHLORIDE	93	%REC	MS1	1	EPA 300.0
01D1237-008	FLUORIDE	89	%REC	MS1	1	E300.0, E340.2, SM4500-F-B,C
01D1133-001	HARDNESS, TOTAL	101	%REC	MS1	1	E130.2, SM 2340C
01D1181-002	HARDNESS, TOTAL	99	%REC	MS1	1	E130.2, SM 2340C
01D1306-005	HARDNESS, TOTAL	100	%REC	MS1	1	E130.2, SM 2340C
01D1343-001	HARDNESS, TOTAL	103	%REC	MS1	1	E130.2, SM 2340C
02D0002-001	HARDNESS, TOTAL	101	%REC	MS1	1	E130.2, SM 2340C
01D1237-008	SULFATE	91	%REC	MS1	1	E375.1,2, E300.0,SW9035/9036

Table B-12. Rinsate Results for the Water Quality Parameter Analyte Group.

Location	Sample Date	Analyte	Result	Units	Lab Qual	Detect Limit	Validation	Test Method
GS01	5/14/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
GS03	7/27/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V	E160.2, SM2540 D
GS08	5/30/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
GS10	10/20/00	HARDNESS, TOTAL	8	MG/L		1	V	EPA 130.2
GS10	10/20/00	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V	EPA 160.2
GS10	7/27/01	HARDNESS, TOTAL	1	MG/L	U	1	V1	E130.2, SM 2340C
GS10	7/27/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
GS31	6/29/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
GS38	5/30/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
GS44	7/27/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
SW022	5/30/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
SW093	10/20/00	HARDNESS, TOTAL	12	MG/L		1	V	EPA 130.2
SW093	10/20/00	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V	EPA 160.2
SW093	7/27/01	HARDNESS, TOTAL	1	MG/L	U	1	V1	E130.2, SM 2340C
SW093	7/27/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D
SW120	5/14/01	TOTAL SUSPENDED SOLIDS	5	MG/L	U	5	V1	E160.2, SM2540 D

Table B-13. Surface-Water Contract Required Detection Limits (CRDLs) for All Analyte Groups.

CAS #	Analyte	Required Method	RDL	Units
Dissolved and Total Metals				
7429-90-5	Aluminum	EPA 600	17	ug/L
7440-36-0	Antimony	EPA 600	3	ug/L
7440-38-2	Arsenic	EPA 600	5	ug/L
7440-39-3	Barium	EPA 600	100	ug/L
7440-41-7	Beryllium	EPA 600	1	ug/L
7440-43-9	Cadmium	EPA 600	1	ug/L
7440-70-2	Calcium	EPA 600	5000	ug/L
7440-47-3	Chromium	EPA 600	2	ug/L
7440-48-4	Cobalt	EPA 600	50	ug/L
7440-50-8	Copper	EPA 600	3	ug/L
7439-89-6	Iron	EPA 600	100	ug/L
7439-92-1	Lead	EPA 600	2	ug/L
7439-93-2	Lithium	EPA 600	100	ug/L
7439-95-4	Magnesium	EPA 600	5000	ug/L
7439-96-5	Manganese	EPA 600	15	ug/L
7439-97-6	Mercury	EPA 600	0.1	ug/L
7439-98-7	Molybdenum	EPA 600	30	ug/L
7440-02-0	Nickel	EPA 600	20	ug/L
7440-09-7	Potassium	EPA 600	5000	ug/L
7782-49-2	Selenium	EPA 600	3	ug/L
7440-22-4	Silver	EPA 600	0.3/1	ug/L
7440-23-5	Sodium	EPA 600	5000	ug/L
7440-24-6	Strontium	EPA 600	200	ug/L
7440-28-0	Thallium	EPA 600	4	ug/L
7440-31-5	Tin	EPA 600	200	ug/L
7440-61-1	Uranium	EPA 600	No Value	ug/L
7440-62-2	Vanadium	EPA 600	40	ug/L
7440-66-6	Zinc	EPA 600	20	ug/L
Water Quality Parameters				
T-005	Alkalinity	EPA 310.1 or 310.2	10	mg/L
16887-00-6	Chloride	EPA 300.0	0.5	mg/L
10-30-0	Dissolved Organic Carbon-DOC	EPA 415.1	1	mg/L
16984-48-8	Fluoride	EPA 300.0	0.5	mg/L
14808-79-8	Sulfate as SO ₄ ²⁻	EPA 375.1 or 375.2	5	mg/L
10-33-3	Total Dissolved Solids-TDS	EPA 160.1	10	mg/L
10-32-2	Total Suspended Solids-TSS	EPA 160.2	5	mg/L

CAS #	Analyte	Required Method	RDL	Units
Radionuclides				
14596-10-2	Americium-241	Alpha Spectrometry	0.03	pCi/L
10-12-8	Plutonium-239/240	Alpha Spectrometry	0.03	pCi/L
10028-17-8	Tritium	Liquid Scintillation Counting	400	pCi/L
11-08-5	Uranium-233/234	Alpha Spectrometry	1	pCi/L
15117-96-1	Uranium-235	Alpha Spectrometry	1	pCi/L
7440-61-1	Uranium-238	Alpha Spectrometry	1	pCi/L

Table B-14 – Criteria for Precision Calculations

Calculation Criteria	Lab Qualifier = "U"		Lab Qualifier = "B"		Lab Qualifier = "J"	
	Meaning	Action	Meaning	Action	Meaning	Action
Metals	Non-detect	Calculation made but not included in the summary if both real and dup are "U" qualified	Result detected was less than the contract required detection limit (CRDL) but greater than the instrument detection limit (IDL).	Calculation made and included in the final precision summary.	Result is estimate.	Calculation made but not included in the final summary when the result is less than the CRDL.
Radionuclides	Non-detect	Calculation made but not included in the final summary if both real and dup are "U" qualified	Activity in the method blank exceeded the minimal detectable activity (MDA).	Calculation made and included in the final	Result is estimate.	Calculation made but not included in the final summary if "J" qualified when result is less than CRDL.
Water Quality Parameters	Non-detect	Calculation made but not included in final summary if both real and dup are "U" qualified.	Result detected was less than the CRDL but greater than the IDL.	Calculation made and included in the final precision summary.	Result	Calculation made but not included in the final summary when the result is less than the CRDL

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B.4 SAMPLE COLLECTION FIELD INFORMATION

The following tables present the sample collection information by monitoring location for all automated surface-water samples collected during Water Year 2001. Electronic copies of the sample collection information tables are included in the Appendix Tables directory on the CD-ROM disc. The tables are given in one Microsoft Excel file containing separate worksheets for each monitoring location. The fields in each table are defined as follows:

- **SAMPLE#:** The sample number assigned to the specific sampling event. This number corresponds to the sample number saved in SWD.
- **START DATE-TIME:** The date and time of the first grab sample of the composite (all automated surface-water samples are composite samples).
- **END DATE-TIME:** The end of the composite sampling period. It is generally the date-time of the first grab sample of the next composite sampling period. For storm-event samples the end time is not given.
- **EVENT TYPE:** The type of composite sample collected. The types are described in detail in the Automated Surface-Water Monitoring Work Plan.
- **NUMBER OF GRABS:** The total number of individual grab samples comprising the composite sample. For continuous flow-paced samples the grab size is uniformly 200 ml. The grab size for the other sample types varies, but is sized such that an adequate amount of water is collected to complete all required analyses.
- **AVERAGE FLOW:** The average flow rate (in cfs; for locations with flow measurement) during the sample period. It is calculated by arithmetically averaging the instantaneous flow rates at each grab sample time for the entire composite sample period.
- **FLOW VOLUME:** The total measured surface-water flow volume (in cf; for continuous flow-paced samples only) during the entire composite sampling period.

B.4.1.1 Location GS01

Table B-15. Sample Collection Information for RFCA Samples Collected at GS01: Water Year 2001.

GS01 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0239-001	11/6/00 14:12	11/17/00 11:37	continuous flow-paced	47	0.132	120130
01D0239-006	11/17/00 11:37	11/20/00 11:30	continuous flow-paced	91	0.106	30948
01D0274-002	11/20/00 11:30	12/1/00 9:43	continuous flow-paced	60	0.169	156954
01D0305-001	12/1/00 9:43	12/14/00 14:56	continuous flow-paced	109	0.119	167956
01D0318-001	12/14/00 14:56	1/2/01 9:42	continuous flow-paced	98	0.096	160733
01D0337-006	1/2/01 9:42	1/15/01 11:02	continuous flow-paced	44	0.121	110683
01D0348-003	1/15/01 11:02	1/22/01 9:29	continuous flow-paced	110	Missing Data	9235
01D0362-001	1/22/01 9:29	2/1/01 9:44	continuous flow-paced	54	Missing Data	95967
01D0518-001	2/1/01 9:44	2/14/01 14:11	continuous flow-paced	71	0.193	201662
01D0535-001	2/14/01 14:11	2/28/01 10:20	continuous flow-paced	76	0.258	280278
01D0592-004	2/28/01 10:20	3/15/01 9:25	continuous flow-paced	50	0.377	340745
01D0646-002	3/15/01 9:25	3/27/01 11:25	continuous flow-paced	42	0.314	286890

GS01 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0664-002	3/27/01 11:25	4/3/01 7:55	continuous flow-paced	29	0.370	199821
01D0692-008	4/3/01 7:55	4/16/01 13:02	continuous flow-paced	35	1.510	706758
01D0737-009	4/16/01 13:02	4/24/01 9:27	continuous flow-paced	35	4.303	704213
01D0764-001	4/24/01 9:27	5/1/01 9:31	continuous flow-paced	23	1.362	457061
01D0776-012	5/1/01 9:31	5/5/01 9:49	continuous flow-paced	68	14.009	1092178
01D0790-001	5/5/01 9:49	5/5/01 14:50	continuous flow-paced	45	51.719	900715
01D0962-005	5/5/01 14:50	6/15/01 14:05	continuous flow-paced	21	17.118	2536241
01D0975-002	6/15/01 14:05	6/20/01 8:26	continuous flow-paced	45	1.199	455481
01D1000-002	6/20/01 8:26	6/26/01 8:26	continuous flow-paced	51	1.265	510851
02D0363-004	6/26/01 8:26	12/5/01 8:29	continuous flow-paced	28	0.076	14225

Table B-16. Sample Collection Information for Buffer Zone Hydrologic Samples Collected at GS01: Water Year 2001.

GS01 BZ Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
01D0592-007	3/13/01 20:43	flow-paced storm-event rising-limb	15	1.009

B.4.1.2 Location GS02

No samples collected at GS02 in WY2001.

B.4.1.3 Location GS03

Table B-17. Sample Collection Information for RFCA Samples Collected at GS03: Water Year 2001.

GS03 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0236-001	11/13/00 12:24	11/16/00 11:00	continuous flow-paced	60	2.893	733079
01D0238-001	11/16/00 11:00	11/18/00 11:04	continuous flow-paced	30	2.453	391178
01D0270-001	11/18/00 11:04	11/24/00 8:50	continuous flow-paced	79	2.093	966913
01D0275-001	11/24/00 8:50	11/30/00 8:55	continuous flow-paced	42	1.392	597420
NSQ	11/30/00 8:55	1/11/01 12:31	continuous flow-paced	13		4773
01D0341-001	1/11/01 12:31	1/17/01 8:12	continuous flow-paced	42	0.911	445541
01D0351-001	1/17/01 8:12	1/23/01 12:26	continuous flow-paced	84	0.933	403247
NSQ	1/23/01 12:26	3/12/01 13:35	continuous flow-paced	16		5973
01D0603-001	3/12/01 13:35	3/16/01 14:15	continuous flow-paced	44	1.370	476956
01D0631-001	3/16/01 14:15	3/23/01 15:19	continuous flow-paced	68	1.289	725070
01D0739-001	3/23/01 15:19	4/16/01 13:37	continuous flow-paced	28	0.903	260261

GS03 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
NSQ	4/16/01 13:37	4/24/01 8:53	continuous flow-paced	38		341126
01D0782-001	4/24/01 8:53	5/3/01 10:48	continuous flow-paced	19	1.320	193832
01D0787-001	5/3/01 10:48	5/5/01 11:36	continuous flow-paced	77	7.747	1020492
01D0799-001	5/5/01 11:36	5/8/01 9:04	continuous flow-paced	40	11.677	2442191
01D0803-001	5/8/01 9:04	5/9/01 15:16	continuous flow-paced	53	5.299	576524
01D0810-001	5/9/01 15:16	5/11/01 8:06	continuous flow-paced	55	4.809	696358
01D0810-002	5/11/01 8:06	5/13/01 8:51	continuous flow-paced	53	3.839	672206
01D0822-001	5/13/01 8:51	5/15/01 8:02	continuous flow-paced	56	3.621	610180
01D0839-001	5/15/01 8:02	5/17/01 9:17	continuous flow-paced	58	3.236	570456
01D0869-001	5/17/01 9:17	5/21/01 13:22	continuous flow-paced	77	2.389	781491
01D0951-001	5/21/01 13:22	6/5/01 16:28	continuous flow-paced	24	0.146	90321
NSQ	6/5/01 16:28	6/28/01 11:37	continuous flow-paced	6		19219
01D1023-001	6/28/01 11:37	7/2/01 13:13	continuous flow-paced	40	1.847	596435
01D1047-001	7/2/01 13:13	7/10/01 7:51	continuous flow-paced	50	1.214	590709
01D1076-001	7/10/01 7:51	7/12/01 13:30	continuous flow-paced	78	0.049	8406
01D1076-002	7/12/01 13:30	7/15/01 10:32	continuous flow-paced	110	0.177	14964
01D1198-001	7/15/01 10:32	8/2/01 12:52	continuous flow-paced	40	0.011	8475
01D1219-001	8/2/01 12:52	8/7/01 13:02	continuous flow-paced	35	0.981	419565
01D1308-002	8/7/01 13:02	8/16/01 10:32	continuous flow-paced	76	1.342	924254
01D1308-001	8/16/01 10:32	8/19/01 8:52	continuous flow-paced	50	2.212	558454
01D1342-001	8/19/01 8:52	8/22/01 8:09	continuous flow-paced	51	1.867	479077
01D1377-001	8/22/01 8:09	8/28/01 7:30	continuous flow-paced	57	1.411	525175
NSQ	8/28/01 7:30	10/3/01 13:59	continuous flow-paced	10		1380

Table B-18. Sample Collection Information for Buffer Zone Hydrologic Samples Collected at GS03: Water Year 2001.

GS03 BZ Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
01D0692-009	4/12/01 20:55	flow-paced storm-event rising-limb	15	0.717
01D0737-012	4/22/01 17:39	flow-paced storm-event rising-limb	15	0.656
01D0800-004	5/4/01 20:21	flow-paced storm-event rising-limb	15	6.836

B.4.1.4 Location GS04

Table B-19. Sample Collection Information for Samples Collected at GS04: Water Year 2001.

GS04 Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
01D0592-006	3/13/01 15:19	flow-paced storm-event rising-limb	15	0.866
01D1097-009	7/14/01 18:40	flow-paced storm-event rising-limb	15	1.203

B.4.1.5 Location GS05

No samples collected at GS05 in WY2001.

B.4.1.6 Location GS06

Table B-20. Sample Collection Information for Samples Collected at GS06: Water Year 2001.

GS06 Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
01D1237-008	8/9/01 9:09	flow-paced storm-event rising-limb	15	0.297

B.4.1.7 Location GS08

Table B-21. Sample Collection Information for Samples Collected at GS08: Water Year 2001.

GS08 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0239-002	11/13/00 8:31	11/17/00 20:15	continuous flow-paced	50	1.638	637107
01D0271-008	11/20/00 11:01	11/29/00 9:00	continuous flow-paced	83	1.397	1052568
01D0337-007	1/11/01 8:03	1/16/01 13:57	continuous flow-paced	50	1.232	557960
01D0348-002	1/16/01 13:57	1/22/01 10:30	continuous flow-paced	50	1.292	612851
01D0592-008	3/12/01 8:43	3/16/01 14:03	continuous flow-paced	53	1.870	690873
01D0646-001	3/16/01 14:03	3/23/01 9:30	continuous flow-paced	73	1.712	940506
01D0790-002	5/3/01 7:59	5/5/01 16:48	continuous flow-paced	45	4.436	699727
01D0800-002	5/5/01 16:48	5/7/01 9:43	continuous flow-paced	53	8.351	847440
01D0805-001	5/7/01 9:43	5/10/01 9:49	continuous flow-paced	35	2.156	552676
01D0811-002	5/10/01 9:49	5/14/01 8:47	continuous flow-paced	55	1.878	637514
01D0868-001	5/14/01 8:47	5/21/01 9:45	continuous flow-paced	78	1.613	928787
01D1022-001	6/28/01 9:18	7/2/01 12:49	continuous flow-paced	56	2.570	856744
01D1027-005	7/2/01 12:49	7/9/01 10:30	continuous flow-paced	47	2.606	749319

GS08 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D1219-002	8/2/01 8:06	8/7/01 12:37	continuous flow-paced	48	1.515	673154
01D1306-004	8/7/01 12:37	8/16/01 9:30	continuous flow-paced	82	1.719	1161803

B.4.1.8 Location GS10

Table B-22. Sample Collection Information for Samples Collected at GS10: Water Year 2001.

GS10 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0171-002	10/5/00 9:50	10/9/00 9:29	continuous flow-paced	58	0.325	62085
01D0184-001	10/9/00 9:29	10/18/00 9:32	continuous flow-paced	54	0.072	49204
01D0199-001	10/18/00 9:32	10/26/00 11:35	continuous flow-paced	68	0.554	73844
01D0239-003	10/26/00 11:35	11/17/00 13:06	continuous flow-paced	35	0.058	102791
01D0305-002	11/17/00 13:06	12/15/00 11:53	continuous flow-paced	35	0.060	121255
01D0329-001	12/15/00 11:53	1/8/01 11:52	continuous flow-paced	38	0.053	108227
01D0362-003	1/8/01 11:52	2/6/01 10:32	continuous flow-paced	36	0.055	118697
01D0518-003	2/6/01 10:32	2/15/01 13:30	continuous flow-paced	53	0.121	36490
01D0535-002	2/15/01 13:30	2/28/01 13:05	continuous flow-paced	38	0.060	48327
01D0592-005	2/28/01 13:05	3/15/01 10:20	continuous flow-paced	58	0.400	121513
01D0646-004	3/15/01 10:20	3/27/01 8:30	continuous flow-paced	37	0.225	80151
01D0684-006	3/27/01 8:30	4/9/01 9:55	continuous flow-paced	39	0.142	81030
01D0692-005	4/9/01 9:55	4/12/01 15:31	continuous flow-paced	45	2.970	204500
01D0704-006	4/12/01 15:31	4/20/01 9:30	continuous flow-paced	41	0.984	157699
01D0737-007	4/20/01 9:30	4/24/01 8:00	continuous flow-paced	50	2.114	332336
01D0776-004	4/24/01 8:00	5/3/01 8:31	continuous flow-paced	38	0.458	146272
01D0790-004	5/3/01 8:31	5/5/01 8:30	continuous flow-paced	110	4.103	438844
01D0790-003	5/5/01 8:30	5/5/01 15:15	continuous flow-paced	57	7.504	159338
01D0868-004	5/5/01 15:15	5/21/01 12:00	continuous flow-paced	41	1.656	311531
01D0905-001	5/21/01 12:00	6/1/01 9:12	continuous flow-paced	49	0.467	131883
01D0931-001	6/1/01 9:12	6/7/01 10:49	continuous flow-paced	38	0.158	61565
01D0962-003	6/7/01 10:49	6/15/01 11:53	continuous flow-paced	71	1.503	116206
01D1022-002	6/15/01 11:53	7/2/01 10:49	continuous flow-paced	41	0.051	67746
01D1083-001	7/2/01 10:49	7/12/01 9:28	continuous flow-paced	59	3.127	112853
01D1083-002	7/12/01 9:28	7/15/01 10:56	continuous flow-paced	110	33.631	426623
01D1181-001	7/15/01 10:56	8/1/01 7:36	continuous flow-paced	50	0.069	95841
01D1237-006	8/1/01 7:36	8/9/01 11:14	continuous flow-paced	100	17.685	210914
01D1343-001	8/9/01 11:14	8/20/01 13:07	continuous flow-paced	35	4.345	188982

GS10 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D1387-005	8/20/01 13:07	9/8/01 17:37	continuous flow-paced	110	2.586	210092
01D1389-001	9/8/01 17:37	9/18/01 13:24	continuous flow-paced	37	0.539	64607
02D0002-002	9/18/01 13:24	10/1/01 10:15	continuous flow-paced	40	0.056	56985

B.4.1.9 Location GS11

Table B-23. Sample Collection Information for Samples Collected at GS11: Water Year 2001.

GS11 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0239-004	11/13/00 8:46	11/18/00 10:39	continuous flow-paced	48	1.685	737365
01D0271-007	11/18/00 10:39	11/27/00 9:45	continuous flow-paced	48	1.105	755318
01D0800-003	5/6/01 12:42	5/8/01 8:49	continuous flow-paced	50	4.698	719107
01D0805-002	5/8/01 8:49	5/10/01 9:59	continuous flow-paced	47	3.562	629583
01D0811-001	5/10/01 9:59	5/13/01 8:33	continuous flow-paced	45	2.410	607907
01D0827-004	5/13/01 8:33	5/16/01 7:53	continuous flow-paced	50	2.221	568309
01D0861-006	5/16/01 7:53	5/21/01 10:00	continuous flow-paced	47	1.525	532580
01D1306-006	8/16/01 8:19	8/19/01 8:28	continuous flow-paced	46	2.395	630209
01D1343-002	8/19/01 8:28	8/22/01 7:43	continuous flow-paced	48	2.115	541963
01D1357-005	8/22/01 7:43	8/27/01 10:15	continuous flow-paced	53	1.619	586610

B.4.1.10 Location GS27

Table B-24. Sample Collection Information for Samples Collected at GS27: Water Year 2001.

GS27 Sample#	Start Date-Time	Event Type	Number of Grabs	Average Flow [cfs]
01D0592-002	3/10/01 15:25	flow-paced storm-event rising-limb	15	0.009
01D0737-011	4/21/01 20:47	flow-paced storm-event rising-limb	15	0.003
01D0868-002	5/18/01 23:53	flow-paced storm-event rising-limb	15	0.013
01D0962-001	6/13/01 14:42	flow-paced storm-event rising-limb	15	0.009
01D1058-003	7/10/01 19:15	flow-paced storm-event rising-limb	15	0.052
01D1083-004	7/13/01 17:24	flow-paced storm-event rising-limb	15	0.048
01D1237-012	8/9/01 9:11	flow-paced storm-event rising-limb	15	0.044
01D1387-006	9/8/01 0:06	flow-paced storm-event rising-limb	15	0.016

B.4.1.11 Location GS31**Table B-25. Sample Collection Information for Samples Collected at GS31: Water Year 2001.**

GS31 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0975-001	6/15/01 11:26	6/20/01 8:04	continuous flow-paced	59	1.625	673178
01D0995-001	6/20/01 8:04	6/24/01 16:45	continuous flow-paced	53	1.640	598293
01D0995-002	6/25/01 8:55	6/25/01 12:45	continuous flow-paced	25	4.682	12807

B.4.1.12 Location GS32**Table B-26. Sample Collection Information for Samples Collected at GS32: Water Year 2001.**

GS32 Sample#	Start Date-Time	Event Type	Number of Grabs
01D0190-002	10/22/00 11:58	time-paced storm-event rising-limb	15
01D0507-002	1/18/01 14:11	time-paced storm-event rising-limb	15
01D0548-011	3/10/01 9:47	time-paced storm-event rising-limb	15
01D0962-002	6/13/01 14:43	time-paced storm-event rising-limb	15
01D1065-001	7/6/01 19:31	time-paced storm-event rising-limb	15
01D1237-010	8/9/01 9:13	time-paced storm-event rising-limb	15
01D1387-003	9/7/01 6:03	time-paced storm-event rising-limb	15

B.4.1.13 Location GS38**Table B-27. Sample Collection Information for Samples Collected at GS38: Water Year 2001.**

GS38 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0310-002	10/3/00 15:38	3/10/01 8:42	continuous flow-paced	44	0.206	45413
01D0684-007	3/10/01 8:42	4/12/01 9:53	continuous flow-paced	63	0.733	92609
01D0692-001	4/12/01 9:53	4/16/01 9:37	continuous flow-paced	35	0.510	37262
01D0737-001	4/16/01 9:37	4/23/01 9:07	continuous flow-paced	66	0.952	71295
01D0776-007	4/23/01 9:07	5/4/01 9:02	continuous flow-paced	70	0.393	75779
01D0790-005	5/4/01 9:02	5/5/01 9:05	continuous flow-paced	75	1.249	95041
01D0861-003	5/5/01 9:05	5/21/01 9:43	continuous flow-paced	66	1.203	75172
01D1058-001	5/21/01 9:43	7/11/01 16:55	continuous flow-paced	40	0.831	42887
01D1083-005	7/11/01 16:55	7/15/01 11:57	continuous flow-paced	65	5.514	68472
01D1237-011	7/15/01 11:57	8/10/01 18:31	continuous flow-paced	63	5.919	62715
01D1387-009	8/10/01 18:31	9/13/01 19:07	continuous flow-paced	57	0.971	61107
02D0361-002	9/13/01 19:07	11/29/01 12:48	continuous flow-paced	25	0.208	26394

B.4.1.14 Location GS39

Table B-28. Sample Collection Information for Samples Collected at GS39: Water Year 2001.

GS39 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0310-003	10/5/00 9:31	2/15/01 14:48	continuous flow-paced	20	0.038	4100
01D0684-008	2/15/01 14:48	4/12/01 10:17	continuous flow-paced	65	0.226	13188
01D0692-002	4/12/01 10:17	4/17/01 18:23	continuous flow-paced	25	0.088	5250
01D0737-002	4/17/01 18:23	4/23/01 9:38	continuous flow-paced	43	0.121	8798
01D0776-008	4/23/01 9:38	5/4/01 9:21	continuous flow-paced	54	0.071	11171
01D0790-006	5/4/01 9:21	5/5/01 9:12	continuous flow-paced	75	0.235	17424
01D0861-004	5/5/01 9:12	5/21/01 10:09	continuous flow-paced	44	0.217	9413
01D1058-002	5/21/01 10:09	7/11/01 17:22	continuous flow-paced	27	0.273	6905
01D1083-007	7/11/01 17:22	8/9/01 9:22	continuous flow-paced	71	1.238	14829
01D1237-009	8/9/01 9:22	8/10/01 16:55	continuous flow-paced	51	1.142	10268
01D1387-008	8/10/01 16:55	9/13/01 19:57	continuous flow-paced	46	0.190	9670
02D1221-005	9/13/01 19:57	5/16/02 17:14	continuous flow-paced	24	0.046	5149

B.4.1.15 Location GS40

Table B-29. Sample Collection Information for Samples Collected at GS40: Water Year 2001.

GS40 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0225-006	10/21/00 13:53	11/29/00 12:55	continuous flow-paced	45	0.134	128967
01D0329-003	11/29/00 12:55	1/9/01 11:26	continuous flow-paced	45	0.021	69741
01D0348-004	1/9/01 11:26	2/7/01 9:53	continuous flow-paced	73	0.014	43535
01D0548-009	2/7/01 9:53	3/13/01 10:20	continuous flow-paced	35	0.096	106096
01D0684-003	3/13/01 10:20	4/6/01 10:08	continuous flow-paced	37	0.101	98324
01D0737-005	4/6/01 10:08	4/23/01 15:27	continuous flow-paced	54	0.480	172894
01D0776-009	4/23/01 15:27	5/4/01 13:55	continuous flow-paced	50	0.290	124595
01D0790-007	5/4/01 13:55	5/5/01 13:25	continuous flow-paced	34	1.333	101888
01D0887-002	5/5/01 13:25	5/24/01 10:18	continuous flow-paced	56	0.408	155979
01D1011-004	5/24/01 10:18	6/28/01 14:18	continuous flow-paced	61	0.219	123580
01D1097-001	6/28/01 14:18	7/16/01 14:55	continuous flow-paced	57	6.904	172648
01D1237-007	7/16/01 14:55	8/9/01 12:40	continuous flow-paced	62	2.915	170440
01D1387-002	8/9/01 12:40	9/8/01 18:25	continuous flow-paced	75	0.420	156070
02D0002-003	9/8/01 18:25	10/1/01 10:48	continuous flow-paced	45	0.143	103699

B.4.1.16 Location GS41

Table B-30. Sample Collection Information for Samples Collected at GS41: Water Year 2001.

GS41 Sample#	Start Date-Time	Event Type	Number of Grabs	Average Flow [cfs]
01D0737-010	4/23/01 12:36	flow-paced storm-event	15	0.013
01D0790-008	5/4/01 19:51	flow-paced storm-event	15	0.007

B.4.1.17 Location GS42

No samples collected at GS42 in WY2001.

B.4.1.18 Location GS43

Table B-31. Sample Collection Information for Samples Collected at GS43: Water Year 2001.

GS43 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0692-004	10/16/00 17:10	4/16/01 18:56	continuous flow-paced	52	0.054	2147
01D0790-009	4/16/01 18:56	5/5/01 9:29	continuous flow-paced	75	0.049	2485
01D0800-001	5/5/01 9:29	5/7/01 18:20	continuous flow-paced	75	0.063	2963
01D0861-002	5/7/01 18:20	5/21/01 18:38	continuous flow-paced	52	0.039	1456
01D1083-006	5/21/01 18:38	7/15/01 18:43	continuous flow-paced	42	0.189	1144
02D1254-007	7/15/01 18:43	5/24/02 12:30	continuous flow-paced	75	0.169	5244

B.4.1.19 Location GS44

Table B-32. Sample Collection Information for Samples Collected at GS44: Water Year 2001.

GS44 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0199-002	10/4/00 15:05	10/30/00 11:59	continuous flow-paced	38	Missing Grab Times	8017
01D0289-001	10/30/00 11:59	12/5/00 11:49	continuous flow-paced	75	Missing Grab Times	4914
NSQ	12/5/00 11:49	2/23/01 13:50	continuous flow-paced		Missing Grab Times	10800
01D0548-007	2/23/01 13:50	3/13/01 10:55	continuous flow-paced	75	Missing Grab Times	4899
01D0684-005	3/13/01 10:55	4/6/01 9:51	continuous flow-paced	37	0.016	7491
01D0704-001	4/6/01 9:51	4/18/01 8:58	continuous flow-paced	64	0.056	12768
01D0753-003	4/18/01 8:58	4/26/01 10:40	continuous flow-paced	62	0.077	12607
01D0776-010	4/26/01 10:40	5/4/01 14:48	continuous flow-paced	49	0.038	9632

GS44 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0790-010	5/4/01 14:48	5/5/01 13:46	continuous flow-paced	71	0.192	14081
01D0887-003	5/5/01 13:46	5/24/01 9:55	continuous flow-paced	62	0.045	15297
01D1011-005	5/24/01 9:55	6/28/01 14:05	continuous flow-paced	48	0.012	9482
01D1097-002	6/28/01 14:05	7/16/01 14:23	continuous flow-paced	68	0.724	14764
01D1210-001	7/16/01 14:23	8/6/01 9:28	continuous flow-paced	75	0.005	9521
01D1357-004	8/6/01 9:28	8/27/01 10:09	continuous flow-paced	59	0.453	11531
02D0002-004	8/27/01 10:09	10/4/01 23:48	continuous flow-paced	26	0.058	5053

B.4.1.20 Location GS49**Table B-33. Sample Collection Information for Samples Collected at GS49: Water Year 2001.**

GS49 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0548-008	2/11/01 16:21	3/13/01 10:33	continuous flow-paced	41	0.005	3602
01D0684-004	3/13/01 10:33	4/10/01 7:09	continuous flow-paced	45	Missing Grab Times	3891
01D0704-002	4/10/01 7:09	4/20/01 13:11	continuous flow-paced	31	0.017	4874
01D0790-011	4/20/01 13:11	5/5/01 13:35	continuous flow-paced	47	0.051	13834
01D1097-003	5/5/01 13:35	7/25/01 19:21	continuous flow-paced	39	0.448	11285
02D0299-003	7/25/01 19:21	11/18/01 14:26	continuous flow-paced	39	Missing Grab Times	8269

B.4.1.21 Location GS50**Table B-34. Sample Collection Information for Samples Collected at GS50: Water Year 2001.**

GS50 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0737-006	4/12/01 15:07	4/23/01 15:37	continuous flow-paced	75	0.234	4415
01D0790-012	4/23/01 15:37	5/5/01 13:16	continuous flow-paced	47	0.057	3752
01D1097-005	5/5/01 13:16	8/9/01 9:44	continuous flow-paced	65	0.925	4429
02D1254-006	8/9/01 9:44	5/24/02 14:45	continuous flow-paced	37	0.086	3479

B.4.1.22 Location GS51

No samples collected at GS51 in WY2001.

B.4.1.23 Location GS52

No samples collected at GS52 in WY2001.

B.4.1.24 Location GS53

No samples collected at GS53 in WY2001.

B.4.1.25 Location GS54

No samples collected at GS54 in WY2001.

B.4.1.26 Location SW022

Table B-35. Sample Collection Information for Samples Collected at SW022: Water Year 2001.

SW022 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs	Average Flow [cfs]	Flow Volume [cf]
01D0592-003	10/5/00 19:00	3/18/01 0:43	continuous flow-paced	23	0.379	44293
01D0684-009	3/18/01 0:43	4/12/01 10:29	continuous flow-paced	62	1.680	76751
01D0692-003	4/12/01 10:29	4/21/01 21:16	continuous flow-paced	28	0.891	51666
01D0737-003	4/21/01 21:16	4/23/01 9:50	continuous flow-paced	58	1.415	106359
01D0776-006	4/23/01 9:50	5/4/01 9:30	continuous flow-paced	63	0.683	115390
01D0790-013	5/4/01 9:30	5/5/01 9:23	continuous flow-paced	75	2.108	156209
01D0861-005	5/5/01 9:23	5/21/01 10:21	continuous flow-paced	62	1.823	115367
01D1058-004	5/21/01 10:21	7/11/01 17:32	continuous flow-paced	41	1.505	76064
01D1083-008	7/11/01 17:32	7/15/01 11:31	continuous flow-paced	53	4.001	96745
01D1304-001	7/15/01 11:31	8/14/01 22:44	continuous flow-paced	37	4.959	67388
01D1387-007	8/14/01 22:44	9/13/01 19:57	continuous flow-paced	57	1.618	104579
02D0361-001	9/13/01 19:57	12/17/01 15:36	continuous flow-paced	29	0.258	43371

B.4.1.27 Location SW027**Table B-36. Sample Collection Information for Samples Collected at SW027: Water Year 2001.**

SW027 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0684-010	3/14/01 9:00	4/12/01 9:25	continuous flow-paced	44	0.408	58282
01D0692-007	4/12/01 9:25	4/16/01 9:22	continuous flow-paced	79	0.891	133562
01D0737-004	4/16/01 9:22	4/23/01 11:26	continuous flow-paced	57	0.967	96443
01D0764-002	4/23/01 11:26	5/1/01 9:03	continuous flow-paced	57	1.453	96951
01D0790-015	5/1/01 9:03	5/5/01 8:47	continuous flow-paced	100	1.494	213276
01D0790-014	5/5/01 8:47	5/5/01 14:23	continuous flow-paced	58	4.745	95675
01D1133-001	5/5/01 14:23	8/9/01 14:51	continuous flow-paced	34	2.138	268326
01D1387-010	8/9/01 14:51	5/12/02 14:02	continuous flow-paced	39	0.968	65385

B.4.1.28 Location SW055**Table B-37. Sample Collection Information for Samples Collected at SW055: Water Year 2001.**

SW055 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D1387-001	5/28/01 17:06	5/24/02 6:20	continuous flow-paced	21	0.006	409

B.4.1.29 Location SW091**Table B-38. Sample Collection Information for Samples Collected at SW091: Water Year 2001.**

SW091 Sample#	Start Date-Time	Event Type	Number of Grabs	Average Flow [cfs]
01D0776-011	5/5/01 8:18	flow-paced storm-event rising-limb	15	0.193
01D1083-009	7/13/01 17:40	flow-paced storm-event rising-limb	14	0.029

B.4.1.30 Location SW093**Table B-39. Sample Collection Information for Samples Collected at SW093: Water Year 2001.**

SW093 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0184-002	10/2/00 14:18	10/18/00 9:07	continuous flow-paced	59	0.189	169086
01D0199-003	10/18/00 9:07	10/31/00 9:00	continuous flow-paced	64	0.321	168872
01D0239-005	10/31/00 9:00	11/17/00 9:32	continuous flow-paced	35	0.116	144238
01D0274-003	11/17/00 9:32	12/4/00 15:38	continuous flow-paced	40	0.096	136426
01D0305-003	12/4/00 15:38	12/19/00 7:57	continuous flow-paced	36	0.113	125847

SW093 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0329-002	12/19/00 7:57	1/8/01 10:40	continuous flow-paced	40	0.080	136349
01D0362-002	1/8/01 10:40	2/1/01 10:27	continuous flow-paced	37	0.072	135212
01D0518-002	2/1/01 10:27	2/19/01 12:36	continuous flow-paced	47	0.123	148644
01D0535-003	2/19/01 12:36	2/28/01 12:39	continuous flow-paced	36	0.137	96590
01D0548-006	2/28/01 12:39	3/12/01 12:05	continuous flow-paced	71	0.472	182557
01D0620-001	3/12/01 12:05	3/20/01 8:49	continuous flow-paced	59	0.324	141286
01D0646-003	3/20/01 8:49	3/27/01 8:20	continuous flow-paced	50	0.288	99762
01D0664-001	3/27/01 8:20	4/2/01 13:46	continuous flow-paced	46	0.251	100632
01D0692-006	4/2/01 13:46	4/12/01 15:48	continuous flow-paced	40	1.860	282536
01D0704-005	4/12/01 15:48	4/20/01 9:16	continuous flow-paced	51	1.124	371769
01D0737-008	4/20/01 9:16	4/24/01 7:42	continuous flow-paced	66	3.137	500882
01D0776-005	4/24/01 7:42	5/2/01 8:42	continuous flow-paced	37	0.390	215802
01D0790-017	5/2/01 8:42	5/5/01 8:16	continuous flow-paced	110	4.199	657810
01D0790-016	5/5/01 8:16	5/5/01 15:27	continuous flow-paced	51	10.229	239938
01D0811-003	5/5/01 15:27	5/14/01 9:04	continuous flow-paced	42	1.018	345102
01D0868-003	5/14/01 9:04	5/21/01 11:38	continuous flow-paced	48	1.204	211629
01D0905-002	5/21/01 11:38	6/1/01 8:28	continuous flow-paced	62	0.374	269041
01D0931-002	6/1/01 8:28	6/7/01 10:06	continuous flow-paced	72	0.332	156514
01D0962-004	6/7/01 10:06	6/15/01 12:04	continuous flow-paced	67	0.426	153505
01D1000-001	6/15/01 12:04	6/25/01 14:25	continuous flow-paced	42	0.153	127029
01D1022-003	6/25/01 14:25	7/2/01 10:25	continuous flow-paced	61	0.179	102728
01D1027-003	7/2/01 10:25	7/9/01 9:06	continuous flow-paced	95	0.360	174874
01D1083-003	7/9/01 9:06	7/15/01 11:09	continuous flow-paced	110	41.879	686104
01D1133-002	7/15/01 11:09	7/23/01 9:49	continuous flow-paced	64	0.142	87278
01D1181-002	7/23/01 9:49	8/1/01 7:58	continuous flow-paced	60	0.152	111222
01D1237-005	8/1/01 7:58	8/9/01 11:31	continuous flow-paced	102	17.897	239592
01D1306-005	8/9/01 11:31	8/16/01 11:49	continuous flow-paced	44	3.179	203258
01D1357-003	8/16/01 11:49	8/27/01 9:56	continuous flow-paced	44	0.103	96604
01D1387-004	8/27/01 9:56	9/8/01 18:09	continuous flow-paced	90	1.462	184694
01D1389-002	9/8/01 18:09	9/20/01 9:24	continuous flow-paced	56	0.369	116730
02D0002-001	9/20/01 9:24	10/1/01 10:26	continuous flow-paced	36	0.091	87458

B.4.1.31 Location SW119

Table B-40. Sample Collection Information for Samples Collected at SW119: Water Year 2001.

SW119 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0704-003	4/11/01 12:34	4/21/01 21:02	continuous flow-paced	56	0.030	2915
01D0753-001	4/21/01 21:02	5/2/01 7:57	continuous flow-paced	35	0.044	3940
01D0790-018	5/2/01 7:57	5/5/01 13:09	continuous flow-paced	75	0.093	10777
01D1097-007	5/5/01 13:09	8/9/01 10:32	continuous flow-paced	54	0.632	8517
02D1264-004	8/9/01 10:32	9/13/02 13:22	continuous flow-paced	33	0.059	4736

B.4.1.32 Location SW120

Table B-41. Sample Collection Information for Samples Collected at SW120: Water Year 2001.

SW120 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0507-001	10/5/00 20:02	2/23/01 13:15	continuous flow-paced	31	0.010	8951
01D0548-010	2/23/01 13:15	3/13/01 10:01	continuous flow-paced	75	0.001	4329
01D0684-002	3/13/01 10:01	4/11/01 15:31	continuous flow-paced	34	0.008	4652
01D0704-004	4/11/01 15:31	4/21/01 21:22	continuous flow-paced	60	0.177	18160
01D0753-004	4/21/01 21:22	5/2/01 13:10	continuous flow-paced	55	0.110	15332
01D0790-019	5/2/01 13:10	5/5/01 13:05	continuous flow-paced	75	0.164	31019
01D1097-004	5/5/01 13:05	8/9/01 10:04	continuous flow-paced	70	0.685	24327
01D1388-001	8/9/01 10:04	9/13/01 22:47	continuous flow-paced	53	0.402	15821
02D0724-002	9/13/01 22:47	3/5/02 18:19	continuous flow-paced	74	0.028	7538

B.4.1.33 Location SW134

Table B-42. Sample Collection Information for Samples Collected at SW134: Water Year 2001.

SW134 Sample#	Start Date-Time	Event Type	Number of Grabs	Average Flow [cfs]
01D0237-001	11/16/00 10:40	flow-paced storm-event rising-limb	15	0.440
01D0552-001	3/5/01 11:49	flow-paced storm-event rising-limb	15	1.146
01D0704-007	4/17/01 11:21	flow-paced storm-event rising-limb	15	1.153
01D1058-005	7/10/01 11:08	flow-paced storm-event rising-limb	15	1.314

B.4.1.34 Location 995POE

Table B-43. Sample Collection Information for Samples Collected at 995POE: Water Year 2001.

995POE Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
01D0271-006	10/27/00 0:01	11/7/00 13:07	continuous flow-paced	47	0.201	527243
	11/7/00 13:07	11/17/00 8:49	continuous flow-paced	39		
	11/17/00 8:49	11/28/00 8:39	continuous flow-paced	39		
01D0310-001	11/28/00 8:39	12/7/00 9:26	continuous flow-paced	54	0.253	615377
	12/7/00 9:26	12/18/00 10:37	continuous flow-paced	47		
	12/18/00 10:37	12/29/00 9:56	continuous flow-paced	43		
01D0362-004	12/29/00 9:56	1/12/01 10:08	continuous flow-paced	49	0.189	600029
	1/12/01 10:08	1/25/01 11:51	continuous flow-paced	46		
	1/25/01 11:51	2/6/01 10:11	continuous flow-paced	42		
01D0548-005	2/6/01 10:11	2/19/01 12:57	continuous flow-paced	56	0.238	627096
	2/19/01 12:57	2/28/01 10:01	continuous flow-paced	38		
	2/28/01 10:01	3/12/01 12:21	continuous flow-paced	51		
01D0684-001	3/12/01 12:21	3/22/01 14:08	continuous flow-paced	46	0.236	521088
	3/22/01 14:08	4/2/01 14:20	continuous flow-paced	47		
	4/2/01 14:20	4/9/01 10:10	continuous flow-paced	28		
01D0764-003	4/9/01 10:10	4/17/01 13:23	continuous flow-paced	50	0.378	649242
	4/17/01 13:23	4/24/01 9:48	continuous flow-paced	47		
	4/24/01 9:48	5/1/01 10:48	continuous flow-paced	52		
01D0887-001	5/1/01 10:48	5/7/01 12:57	continuous flow-paced	60	0.447	807227
	5/7/01 12:57	5/14/01 14:34	continuous flow-paced	57		
	5/14/01 14:34	5/24/01 12:30	continuous flow-paced	68		
01D0984-001	5/24/01 12:30	6/1/01 13:12	continuous flow-paced	48	0.305	694167
	6/1/01 13:12	6/11/01 12:15	continuous flow-paced	56		
	6/11/01 12:15	6/21/01 10:03	continuous flow-paced	58		
01D1133-003	6/21/01 10:03	7/2/01 11:08	continuous flow-paced	54	0.290	734344
	7/2/01 11:08	7/13/01 10:27	continuous flow-paced	57		
	7/13/01 10:27	7/23/01 14:01	continuous flow-paced	59		
01D1357-001	7/23/01 14:01	8/2/01 14:26	continuous flow-paced	54	0.272	679507
	8/2/01 14:26	8/13/01 12:03	continuous flow-paced	55		
	8/13/01 12:03	8/23/01 11:24	continuous flow-paced	48		
01D1390-001	8/23/01 11:24	9/4/01 13:47	continuous flow-paced	57	0.266	695744
	9/4/01 13:47	9/13/01 9:26	continuous flow-paced	47		

995POE Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
	9/13/01 9:26	9/24/01 9:34	continuous flow-paced	59		
02D0204-001	9/24/01 9:34	10/4/01 8:49	continuous flow-paced	47	0.242	587259
	10/4/01 8:49	10/15/01 16:04	continuous flow-paced	50		
	10/15/01 16:04	10/25/01 9:12	continuous flow-paced	41		

Note: 995POE composite samples are analyzed in groups of three. A composite for the group is created in the sample preparation facility based on the volumes for each composite comprising the group. In the above table, the sample number, average flow rate, and flow volume is given with the first composite of the group of three

B.5 REAL-TIME WATER QUALITY PARAMETERS

B.5.1 Data Description

B.5.1.1 Real-Time Water-Quality Data Collection and Computation

The real-time water-quality data obtained at a continuous surface-water gaging station on a stream or conveyance, such as an irrigation ditch, consist of continuous 15-minute interval parameter readings collected using multi-parameter probes. These parameters (depending on location) include temperature, pH, specific conductivity, nitrate¹¹, and turbidity. These data, together with supplemental flow records, are used to compute daily mean values.

Daily mean values are computed by averaging the individual measurements.¹² Missing data points due to equipment malfunction or temporary removal for calibration are interpolated using professional judgement when appropriate. Professional judgement is also used to remove errant or ambiguous data points as appropriate. Replacement data points are then interpolated, as appropriate. Estimated values are labeled as such, and the daily mean including those points is also labeled as estimated. Only 15-minute values measured during non-zero flow are included in the daily average. Since the probes are normally situated in a pool at the monitoring location, 15-minute parameter readings will be collected during periods of zero flow. Therefore, for days when there is no flow, no mean daily parameter values are calculated. Similarly, for a location that had non-zero flow for part of a day, the calculated mean daily value includes only a portion of the collected 15-minute parameter values.

B.5.1.2 Data Presentation

The daily mean water-quality parameter tables published for each continuous-record surface-water gaging station consist of three parts: plots of the daily mean parameter values for the water year; a table of daily mean values for the water year; a tabular statistical summary of monthly mean values for the water year; and a tabular statistical summary of annual mean values for the water year.

B.5.1.3 Daily Mean Water-Quality Values

For a day of zero flow, the daily value is given as 'No Flow' in the table. For a day of non-zero flow with missing 15-minute values that could not be estimated, the daily value is given as 'Missing Data'. Daily values containing estimated readings are *italicized*.

B.5.1.4 Summary Statistics

For a month of complete record, the monthly values are the arithmetic average of all the individual 15-minute interval readings for the given time period. For a month of zero flow, the monthly value is given as 'No Flow' in the table. For a month of non-zero flow with missing parameter values that could not be estimated, the monthly value is calculated using the available 15-minute readings and labeled as 'Partial Data'. Monthly values containing estimated readings are *not italicized*.

For a year of complete record, the annual values are the arithmetic average of all the individual 15-minute interval readings for the given time period. For a year with missing parameter values that could not be estimated, the

¹¹ Nitrate ion-specific electrodes (ISEs) are subject to a variety of interferences caused by common surface-water constituents including chloride and natural organic matter. For this reason, use of nitrate ISEs has typically been limited to the laboratory, where sample composition can be controlled. Both short-term and cumulative errors have been observed in the data collected by field-deployed nitrate ISEs at the Site. Although, modifications to calibration procedures have successfully expedited and improved the calibration process, short-term drift and interferences in field-deployed ISEs cannot be prevented or corrected.

Given the Site's current nitrate action level/standard of 10 mg/L-N, nitrate data collected by field-deployed nitrate ISEs is not accurate enough to be used for compliance. However, considering that nitrate is an important indicator parameter at the Site, and that real-time monitoring of nitrate is a fundamental part of the quality control plan for progression toward Site closure, real-time measurement of nitrate continues. Nitrate ISE data is considered in conjunction with other water quality parameters as an indicator of acute or chronic contaminant releases to surface water.

¹² For pH, the log of the individual pH readings are averaged. This average is the converted back to standard pH units.

annual value is calculated using the available 15-minute readings and labeled as 'Partial Data'. Annual values containing estimated readings are *not italicized*.

B.5.1.5 Other Records Available

Information used in the preparation of the records in this report, such as calibration notes and field notes, are on file at the Site. Information on the availability of the unpublished information or on the published statistical analyses is available from RFETS personnel involved with data collection at the Site.

B.5.2 Real-Time Water Quality Data

This section includes mean daily real-time water-quality parameter tables and plots by monitoring location and water year. Electronic copies of the tables are included in the Appendix Tables directory on the CD-ROM disc. The tables are given in a single Microsoft Excel file. Each file contains separate worksheets for each monitoring location with tables for all applicable parameters.

B.5.2.1 GS01: Woman Creek at Indiana Street

No real-time water-quality data were collected at GS01 during WY01.

B.5.2.2 GS03: Walnut Creek at Indiana Street

Table B-44. WY01 Mean Daily Water Temperature at GS03: Walnut Creek at Indiana Street.

Water Year 2001: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	15.8	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	Missing Data
2	16.7	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data
3	Missing Data	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data
4	Missing Data	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
5	Missing Data	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
6	9.8	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
7	8.4	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
8	9.5	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data
9	10.3	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data
10	11.4	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
11	12.4	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
12	13.4	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
13	12.5	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
14	11.1	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
15	10.8	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data
16	10.9	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
17	11.4	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
18	11.9	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
19	11.8	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
20	11.8	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
21	11.0	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
22	9.2	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
23	9.2	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
24	10.0	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
25	9.8	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
26	8.8	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
27	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
28	No Flow	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
29	No Flow	Missing Data	No Flow	Missing Data	NA	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
30	No Flow	Missing Data	No Flow	Missing Data	NA	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	No Flow
31	No Flow	NA	No Flow	Missing Data	NA	Missing Data	NA	Missing Data	NA	No Flow	Missing Data	NA
Monthly	Partial Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data
Average	11.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Partial Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Degrees Celsius

11.3

Partial Data

Water Year 2001: Daily Mean pH Values in Standard Units

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
 No Flow: No streamflow was measured at the gage for the day

Standard pH Units

Partial Data

Water Year 2001: Daily Mean Specific Conductivity Values in $\mu\text{S}/\text{cm}$

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: *Italic values include estimated data*
 No Flow: No streamflow was measured at the gage for the day

$\mu\text{S/cm}$ 550

Partial Data

B.5.2.3 GS08: South Walnut Creek at Pond B-5 Outlet

Nitrate was not collected at GS08 in WY01.

Table B-47. WY01 Mean Daily Water Temperature at GS08: South Walnut Creek at Pond B-5.

Water Year 2001: Daily Mean Temperature Values In Degrees Celsius

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	21.2	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	22.3	21.3	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.7	No Flow	22.7	21.5	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	23.5	21.6	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.0	No Flow	22.1	21.9	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.2	No Flow	22.1	22.5	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.4	No Flow	22.5	23.1	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.6	No Flow	22.5	23.8	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.9	No Flow	19.7	22.6	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.9	No Flow	No Flow	19.4	No Flow
11	No Flow	No Flow	No Flow	4.1	No Flow	No Flow	No Flow	11.4	No Flow	No Flow	19.7	No Flow
12	No Flow	No Flow	No Flow	4.2	No Flow	Missing Data	No Flow	12.2	No Flow	No Flow	20.3	No Flow
13	No Flow	3.9	No Flow	4.3	No Flow	Missing Data	No Flow	12.8	No Flow	No Flow	21.7	No Flow
14	No Flow	3.8	No Flow	4.3	No Flow	5.9	No Flow	13.9	No Flow	No Flow	21.1	No Flow
15	No Flow	3.8	No Flow	4.3	No Flow	5.5	No Flow	16.4	No Flow	No Flow	19.3	No Flow
16	No Flow	3.3	No Flow	4.1	No Flow	5.8	No Flow	17.2	No Flow	No Flow	18.3	No Flow
17	No Flow	3.6	No Flow	3.9	No Flow	5.9	No Flow	16.7	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	Missing Data	No Flow	5.9	No Flow	16.1	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	Missing Data	No Flow	6.7	No Flow	16.8	No Flow	No Flow	No Flow	No Flow
20	No Flow	3.8	No Flow	Missing Data	No Flow	7.3	No Flow	13.9	No Flow	No Flow	No Flow	No Flow
21	No Flow	3.8	No Flow	Missing Data	No Flow	8.3	No Flow	10.1	No Flow	No Flow	No Flow	No Flow
22	No Flow	3.9	No Flow	Missing Data	No Flow	9.6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	4.0	No Flow	No Flow	No Flow	9.0	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
24	No Flow	4.1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	4.2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	3.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	3.3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	2.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	16.3	No Flow	No Flow	No Flow
29	No Flow	2.4	No Flow	No Flow	NA	No Flow	No Flow	No Flow	18.2	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	20.0	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	3.7	No Flow	4.2	No Flow	6.8	No Flow	12.1	16.4	22.2	21.3	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Degrees Celsius **12.2****Table B-48. WY01 Mean Daily pH at GS08: South Walnut Creek at Pond B-5.**

Water Year 2001: Daily Mean pH Values In Standard Units

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.3	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.3	8.8	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	9.5	8.9	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.2	No Flow	9.5	9.0	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.1	No Flow	9.3	9.0	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.0	No Flow	9.1	9.0	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.9	No Flow	9.2	9.2	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.9	No Flow	9.2	9.2	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.9	No Flow	8.7	8.7	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.9	No Flow	No Flow	8.8	No Flow
11	No Flow	No Flow	No Flow	8.5	No Flow	No Flow	No Flow	9.0	No Flow	No Flow	8.8	No Flow
12	No Flow	No Flow	No Flow	8.5	No Flow	Missing Data	No Flow	9.2	No Flow	No Flow	8.8	No Flow
13	No Flow	9.5	No Flow	8.7	No Flow	Missing Data	No Flow	9.2	No Flow	No Flow	9.3	No Flow
14	No Flow	9.5	No Flow	8.8	No Flow	8.8	No Flow	9.2	No Flow	No Flow	9.3	No Flow
15	No Flow	9.4	No Flow	9.2	No Flow	8.8	No Flow	9.4	No Flow	No Flow	8.7	No Flow
16	No Flow	9.4	No Flow	9.3	No Flow	8.8	No Flow	9.7	No Flow	No Flow	8.0	No Flow
17	No Flow	9.4	No Flow	9.2	No Flow	8.8	No Flow	9.7	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	Missing Data	No Flow	8.9	No Flow	9.6	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	Missing Data	No Flow	8.8	No Flow	9.5	No Flow	No Flow	No Flow	No Flow
20	No Flow	9.3	No Flow	Missing Data	No Flow	8.8	No Flow	9.1	No Flow	No Flow	No Flow	No Flow
21	No Flow	9.3	No Flow	Missing Data	No Flow	8.7	No Flow	8.7	No Flow	No Flow	No Flow	No Flow
22	No Flow	9.3	No Flow	Missing Data	No Flow	8.6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	9.3	No Flow	No Flow	No Flow	8.5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
24	No Flow	9.4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	9.3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	9.2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	9.1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	9.0	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.6	No Flow	No Flow	No Flow
29	No Flow	9.0	No Flow	No Flow	NA	No Flow	No Flow	No Flow	8.8	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	9.1	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	9.3	No Flow	8.8	No Flow	8.7	No Flow	8.8	8.9	9.2	8.8	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Standard pH Units **8.9**

Table B-49. WY01 Mean Daily Specific Conductivity at GS08: South Walnut Creek at Pond B-5.Water Year 2001: Daily Mean Specific Conductivity Values in $\mu\text{S/cm}$

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	830	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	827	844	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	829	841	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	832	841	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	850	841	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1084	No Flow	Missing Data	643	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1100	No Flow	Missing Data	644	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1098	No Flow	Missing Data	646	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1092	No Flow	Missing Data	645	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1110	No Flow	No Flow	523	No Flow
11	No Flow	No Flow	No Flow	900	No Flow	No Flow	No Flow	1137	No Flow	No Flow	525	No Flow
12	No Flow	No Flow	No Flow	896	No Flow	Missing Data	No Flow	1133	No Flow	No Flow	530	No Flow
13	No Flow	574	No Flow	890	No Flow	Missing Data	No Flow	1132	No Flow	No Flow	526	No Flow
14	No Flow	599	No Flow	880	No Flow	1239	No Flow	1142	No Flow	No Flow	538	No Flow
15	No Flow	611	No Flow	855	No Flow	1268	No Flow	1148	No Flow	No Flow	558	No Flow
16	No Flow	624	No Flow	840	No Flow	1274	No Flow	1140	No Flow	No Flow	547	No Flow
17	No Flow	630	No Flow	843	No Flow	1282	No Flow	1136	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	Missing Data	No Flow	1290	No Flow	1122	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	Missing Data	No Flow	1305	No Flow	1031	No Flow	No Flow	No Flow	No Flow
20	No Flow	647	No Flow	Missing Data	No Flow	1338	No Flow	1059	No Flow	No Flow	No Flow	No Flow
21	No Flow	650	No Flow	Missing Data	No Flow	1365	No Flow	1074	No Flow	No Flow	No Flow	No Flow
22	No Flow	652	No Flow	Missing Data	No Flow	1384	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	653	No Flow	No Flow	No Flow	1406	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
24	No Flow	654	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	661	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	686	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	710	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	715	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	884	No Flow	No Flow	No Flow
29	No Flow	718	No Flow	No Flow	NA	No Flow	No Flow	No Flow	864	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	843	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	652	No Flow	871	No Flow	1309	No Flow	1139	861	834	593	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

$\mu\text{S/cm}$	902
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Partial Date

Table B-50. WY01 Mean Daily Turbidity at GS08: South Walnut Creek at Pond B-5.

Water Year 2001: Daily Mean Turbidity Values in NTU

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	17	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	20	6	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10	7	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	17	No Flow	25	8	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	24	No Flow	30	10	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	48	No Flow	32	13	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	37	No Flow	34	10	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	33	No Flow	34	11	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	29	No Flow	27	18	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	25	No Flow	No Flow	54	No Flow
11	No Flow	No Flow	No Flow	2	No Flow	No Flow	No Flow	24	No Flow	No Flow	41	No Flow
12	No Flow	No Flow	No Flow	3	No Flow	Missing Data	No Flow	20	No Flow	No Flow	26	No Flow
13	No Flow	4	No Flow	4	No Flow	Missing Data	No Flow	17	No Flow	No Flow	24	No Flow
14	No Flow	3	No Flow	6	No Flow	9	No Flow	17	No Flow	No Flow	31	No Flow
15	No Flow	3	No Flow	13	No Flow	8	No Flow	20	No Flow	No Flow	31	No Flow
16	No Flow	4	No Flow	16	No Flow	7	No Flow	18	No Flow	No Flow	47	No Flow
17	No Flow	3	No Flow	16	No Flow	5	No Flow	16	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	Missing Data	No Flow	4	No Flow	18	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	Missing Data	No Flow	5	No Flow	36	No Flow	No Flow	No Flow	No Flow
20	No Flow	3	No Flow	Missing Data	No Flow	6	No Flow	25	No Flow	No Flow	No Flow	No Flow
21	No Flow	3	No Flow	Missing Data	No Flow	6	No Flow	19	No Flow	No Flow	No Flow	No Flow
22	No Flow	2	No Flow	Missing Data	No Flow	12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	2	No Flow	No Flow	No Flow	11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
24	No Flow	2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18	No Flow	No Flow	No Flow
29	No Flow	4	No Flow	No Flow	NA	No Flow	No Flow	No Flow	16	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	15	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	3	No Flow	9	No Flow	7	No Flow	24	16	27	21	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

NTU	18
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Partial Date

Final Automated Surface-Water Monitoring Report Appendices: Water Year 2001

B.5.2.4 GS11: North Walnut Creek at Pond A-4 Outlet

Nitrate was not collected at GS11 in WY01.

Table B-51. WY01 Mean Daily Water Temperature at GS11: North Walnut Creek at Pond A-4.

Water Year 2001: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.8	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11.9	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.2	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.8	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	15.2	No Flow	No Flow	No Flow	No Flow
13	No Flow	3.9	No Flow	No Flow	No Flow	No Flow	No Flow	17.3	No Flow	No Flow	No Flow	No Flow
14	No Flow	3.9	No Flow	No Flow	No Flow	No Flow	No Flow	14.3	No Flow	No Flow	No Flow	No Flow
15	No Flow	3.8	No Flow	No Flow	No Flow	No Flow	No Flow	15.5	No Flow	No Flow	No Flow	No Flow
16	No Flow	3.5	No Flow	No Flow	No Flow	No Flow	No Flow	16.4	No Flow	No Flow	20.8	No Flow
17	No Flow	3.7	No Flow	No Flow	No Flow	No Flow	No Flow	15.8	No Flow	No Flow	20.8	No Flow
18	No Flow	3.8	No Flow	No Flow	No Flow	No Flow	No Flow	18.0	No Flow	No Flow	21.7	No Flow
19	No Flow	3.2	No Flow	No Flow	No Flow	No Flow	No Flow	16.2	No Flow	No Flow	21.5	No Flow
20	No Flow	3.2	No Flow	No Flow	No Flow	No Flow	No Flow	13.7	No Flow	No Flow	20.6	No Flow
21	No Flow	3.5	No Flow	No Flow	No Flow	No Flow	No Flow	10.8	No Flow	No Flow	20.4	No Flow
22	No Flow	3.8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	20.5	No Flow
23	No Flow	3.8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	20.4	No Flow
24	No Flow	3.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	21.0	No Flow
25	No Flow	3.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	20.5	No Flow
26	No Flow	3.5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	21.6	No Flow
27	No Flow	2.7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	20.1	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	3.6	No Flow	No Flow	No Flow	No Flow	No Flow	13.8	No Flow	No Flow	20.9	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Degrees Celsius 12.2

Table B-52. WY01 Mean Daily pH at GS11: North Walnut Creek at Pond A-4.

Water Year 2001: Daily Mean pH Values in Standard Units

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.4	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.4	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.4	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.3	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.6	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.5	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.6	No Flow	No Flow	No Flow	No Flow
13	No Flow	8.1	No Flow	No Flow	No Flow	No Flow	No Flow	8.6	No Flow	No Flow	No Flow	No Flow
14	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.6	No Flow	No Flow	No Flow	No Flow
15	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.7	No Flow	No Flow	No Flow	No Flow
16	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.6	No Flow	No Flow	8.0	No Flow
17	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.8	No Flow	No Flow	8.0	No Flow
18	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.8	No Flow	No Flow	8.1	No Flow
19	No Flow	8.1	No Flow	No Flow	No Flow	No Flow	No Flow	8.7	No Flow	No Flow	8.2	No Flow
20	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.3	No Flow	No Flow	8.2	No Flow
21	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.0	No Flow	No Flow	7.7	No Flow
22	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow
23	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow
24	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow
25	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	No Flow
26	No Flow	8.1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow
27	No Flow	8.1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	8.2	No Flow	No Flow	No Flow	No Flow	No Flow	8.5	No Flow	No Flow	7.8	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Standard pH Units 8.1

Table B-53. WY01 Mean Daily Specific Conductivity at GS11: North Walnut Creek at Pond A-4.**Water Year 2001: Daily Mean Specific Conductivity Values in $\mu\text{S/cm}$**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1905	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1849	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1844	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1820	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1817	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1833	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1843	No Flow	No Flow	No Flow	No Flow
13	No Flow	1284	No Flow	No Flow	No Flow	No Flow	No Flow	1855	No Flow	No Flow	No Flow	No Flow
14	No Flow	1288	No Flow	No Flow	No Flow	No Flow	No Flow	1858	No Flow	No Flow	No Flow	No Flow
15	No Flow	1288	No Flow	No Flow	No Flow	No Flow	No Flow	1855	No Flow	No Flow	No Flow	No Flow
16	No Flow	1291	No Flow	No Flow	No Flow	No Flow	No Flow	1861	No Flow	No Flow	1219	No Flow
17	No Flow	1296	No Flow	No Flow	No Flow	No Flow	No Flow	1850	No Flow	No Flow	1225	No Flow
18	No Flow	1297	No Flow	No Flow	No Flow	No Flow	No Flow	1852	No Flow	No Flow	1207	No Flow
19	No Flow	1295	No Flow	No Flow	No Flow	No Flow	No Flow	1820	No Flow	No Flow	1204	No Flow
20	No Flow	1297	No Flow	No Flow	No Flow	No Flow	No Flow	1833	No Flow	No Flow	1201	No Flow
21	No Flow	1298	No Flow	No Flow	No Flow	No Flow	No Flow	1850	No Flow	No Flow	1237	No Flow
22	No Flow	1298	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1255	No Flow
23	No Flow	1298	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1285	No Flow
24	No Flow	1298	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1287	No Flow
25	No Flow	1297	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1287	No Flow
26	No Flow	1299	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1299	No Flow
27	No Flow	1300	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1271	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	1295	No Flow	No Flow	No Flow	No Flow	No Flow	1844	No Flow	No Flow	1248	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

 $\mu\text{S/cm}$ 1486**Table B-54. WY01 Mean Daily Turbidity at GS11: North Walnut Creek at Pond A-4.****Water Year 2001: Daily Mean Turbidity Values in NTU**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	20	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	13	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7	No Flow	No Flow	No Flow	No Flow
13	No Flow	5	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow	No Flow
14	No Flow	5	No Flow	No Flow	No Flow	No Flow	No Flow	7	No Flow	No Flow	No Flow	No Flow
15	No Flow	5	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	No Flow	No Flow	No Flow
16	No Flow	4	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	No Flow	9	No Flow
17	No Flow	5	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	8	No Flow
18	No Flow	5	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	7	No Flow
19	No Flow	6	No Flow	No Flow	No Flow	No Flow	No Flow	14	No Flow	No Flow	7	No Flow
20	No Flow	6	No Flow	No Flow	No Flow	No Flow	No Flow	21	No Flow	No Flow	10	No Flow
21	No Flow	6	No Flow	No Flow	No Flow	No Flow	No Flow	34	No Flow	No Flow	12	No Flow
22	No Flow	7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow
23	No Flow	10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow
24	No Flow	12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow
25	No Flow	15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow
26	No Flow	28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow
27	No Flow	24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	9	No Flow	No Flow	No Flow	No Flow	No Flow	12	No Flow	No Flow	9	No Flow
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Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

NTU 10

Partial Data

B.5.2.5 GS31: Woman Creek at Pond C-2 Outlet

Nitrate was not collected at GS31 in WY01.

Table B-55. WY01 Mean Daily Water Temperature at GS31: Woman Creek at Pond C-2.**Water Year 2001: Daily Mean Temperature Values In Degrees Celsius**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	17.1	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.4	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.8	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.5	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	19.0	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.5	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.4	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	19.2	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	19.3	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	19.8	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.4	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.3	No Flow	No Flow	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Degrees Celsius

18.3

Table B-56. WY01 Mean Daily pH at GS31: Woman Creek at Pond C-2.**Water Year 2001: Daily Mean pH Values In Standard Units**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.6	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.6	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.3	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.4	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.2	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.5	No Flow	No Flow	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Standard pH Units

7.5

Table B-57. WY01 Mean Daily Specific Conductivity at GS31: Woman Creek at Pond C-2.Water Year 2001: Daily Mean Specific Conductivity Values in $\mu\text{S}/\text{cm}$

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	930	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	930	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	931	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	937	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	939	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	940	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	941	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	946	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	951	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	962	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1007	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	942	No Flow	No Flow	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

 $\mu\text{S}/\text{cm}$ 942**Table B-58. WY01 Mean Daily Turbidity at GS31: Woman Creek at Pond C-2.**

Water Year 2001: Daily Mean Turbidity Values in NTU

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	13	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	17	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA

Monthly

Average	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow
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KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

NTU 6

B.5.2.6 GS10: South Walnut Creek at B-1 Bypass**Table B-59. WY01 Mean Daily Water Temperature at GS10: South Walnut Creek at B-1 Bypass.****Water Year 2001: Daily Mean Temperature Values in Degrees Celsius**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	14.3	7.9	2.6	2.2	3.9	Missing Data	6.6	10.8	12.9	16.3	17.5	15.7
2	13.6	7.3	2.4	1.9	4.6	Missing Data	7.1	7.8	12.9	16.3	17.5	16.0
3	13.7	7.5	3.2	2.7	5.0	Missing Data	8.0	5.6	12.6	16.5	17.8	16.2
4	13.0	6.4	3.0	3.3	5.0	Missing Data	8.2	5.6	12.6	16.6	17.9	16.1
5	11.8	7.2	3.0	3.8	5.3	Missing Data	8.5	6.3	13.4	17.1	18.5	15.6
6	9.3	5.5	4.0	4.2	5.1	5.5	7.9	8.4	13.6	17.8	18.2	15.7
7	9.1	4.6	5.4	3.3	4.0	5.5	7.3	9.0	Missing Data	17.9	18.3	Missing Data
8	9.7	4.7	4.9	2.8	2.9	5.2	7.4	9.7	Missing Data	17.6	18.2	11.4
9	9.6	4.6	5.0	2.4	1.8	5.7	7.2	9.8	13.9	17.4	17.0	12.7
10	10.4	3.6	4.1	3.1	1.9	3.9	6.0	9.6	14.1	18.2	17.0	13.6
11	11.2	3.4	Missing Data	3.2	2.6	2.6	2.8	10.4	14.3	18.6	17.1	14.3
12	12.0	3.2	Missing Data	2.9	2.1	3.1	5.2	10.8	14.1	17.8	17.2	14.7
13	12.4	3.2	Missing Data	3.0	2.1	4.8	6.6	11.2	12.2	17.3	17.1	15.3
14	10.3	3.3	Missing Data	2.6	1.8	4.4	6.8	11.5	11.6	17.4	17.1	16.4
15	9.5	3.2	Missing Data	2.2	1.9	3.9	7.2	11.9	12.5	17.0	17.1	15.9
16	9.6	2.9	Missing Data	2.1	1.8	4.1	6.1	11.7	13.1	17.0	16.6	15.4
17	9.7	2.2	Missing Data	1.4	3.3	3.9	7.3	11.2	13.8	16.5	16.5	14.9
18	9.9	2.8	Missing Data	1.7	3.8	3.9	8.2	11.8	14.3	16.8	16.6	14.7
19	10.3	3.2	Missing Data	1.7	3.4	4.8	8.9	12.3	14.1	16.9	16.5	15.3
20	10.2	3.0	Missing Data	2.2	3.2	6.0	8.2	10.3	14.3	17.1	16.4	15.2
21	9.8	3.8	Missing Data	2.2	3.4	6.4	7.0	8.8	15.0	17.1	17.2	14.8
22	9.6	3.8	Missing Data	2.2	3.8	7.1	3.3	10.0	14.6	17.6	16.4	14.9
23	9.5	3.5	Missing Data	2.3	3.7	6.4	8.8	10.9	14.7	17.1	17.0	14.0
24	10.3	3.1	Missing Data	2.3	3.7	5.0	7.9	11.0	14.5	17.1	17.1	13.7
25	9.8	3.4	Missing Data	2.8	3.2	4.1	Missing Data	10.8	14.7	17.1	17.1	14.0
26	9.2	3.1	Missing Data	2.7	Missing Data	4.1	Missing Data	11.5	15.1	16.6	16.7	14.5
27	9.1	3.4	Missing Data	2.5	Missing Data	5.6	9.5	11.9	15.4	17.3	16.6	14.6
28	9.5	3.4	Missing Data	2.1	Missing Data	5.1	9.5	12.4	16.0	17.3	16.5	14.1
29	10.1	2.7	Missing Data	2.3	NA	4.8	10.0	13.0	15.8	17.0	16.0	14.8
30	8.8	2.8	2.4	3.3	NA	5.8	10.1	12.0	16.2	17.3	16.0	14.5
31	8.4	NA	2.7	3.7	NA	5.3	NA	12.3	NA	17.4	15.8	NA
Partial Data												
Monthly:												
Average	10.4	4.1	3.6	2.6	3.3	4.9	7.3	10.3	14.0	17.2	17.1	14.6
Partial Data												

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Degrees Celsius

9.6

Partial Data

Table B-60. WY01 Mean Daily pH at GS10: South Walnut Creek at B-1 Bypass.**Water Year 2001: Daily Mean pH Values in Standard Units**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	8.0	7.8	8.2	7.9	8.0	Missing Data	8.0	8.2	8.1	8.0	7.9	7.9
2	8.0	7.9	8.1	7.9	8.1	Missing Data	8.0	8.0	8.1	8.0	7.9	7.9
3	7.9	7.8	8.1	7.9	8.3	Missing Data	8.0	8.0	8.1	8.0	8.0	7.9
4	7.9	7.8	8.1	7.9	8.2	Missing Data	8.0	8.0	8.0	8.0	8.0	7.9
5	7.8	7.8	8.1	7.9	8.3	Missing Data	8.0	8.0	7.9	8.0	8.0	7.9
6	7.8	7.8	8.0	8.0	8.1	8.0	8.0	8.2	8.0	7.8	8.0	7.8
7	7.9	7.9	7.7	7.9	8.0	8.0	8.1	8.2	Missing Data	7.8	8.0	Missing Data
8	8.0	7.9	7.7	7.8	7.9	8.1	8.1	8.2	Missing Data	7.8	7.9	7.8
9	8.0	7.9	7.8	7.9	7.9	8.1	8.1	8.2	8.1	7.8	7.9	7.9
10	8.0	8.0	7.9	8.0	7.8	7.9	8.0	8.2	8.1	7.9	7.9	8.0
11	8.0	7.9	Missing Data	8.1	7.8	7.9	7.9	8.2	8.1	7.7	7.9	8.0
12	8.0	7.6	Missing Data	8.1	7.8	7.9	7.9	8.2	8.1	7.7	7.9	8.0
13	7.9	7.5	Missing Data	8.2	7.9	7.9	7.9	8.2	8.0	7.8	7.9	7.9
14	7.9	7.5	Missing Data	8.1	7.8	8.0	8.0	8.1	8.0	7.9	7.9	7.8
15	8.0	7.6	Missing Data	8.2	7.8	8.0	8.1	8.1	8.1	8.0	7.9	7.9
16	8.0	7.7	Missing Data	7.9	7.7	8.1	8.1	8.1	8.1	8.0	7.8	8.0
17	8.0	7.9	Missing Data	7.8	7.9	7.9	8.1	8.0	8.1	8.1	7.9	8.0
18	7.9	8.0	Missing Data	7.8	8.0	8.0	8.1	8.0	8.1	8.0	7.9	8.0
19	7.9	8.0	Missing Data	7.8	7.9	8.0	8.1	8.0	8.0	8.0	8.0	8.0
20	7.9	8.0	Missing Data	7.8	7.9	8.0	8.1	8.1	8.0	8.0	8.0	8.0
21	7.9	7.9	Missing Data	7.8	7.9	8.0	8.0	8.1	8.0	8.1	8.0	7.9
22	7.7	8.0	Missing Data	7.8	7.9	8.0	7.8	8.2	8.0	8.1	7.9	8.0
23	7.7	8.0	Missing Data	7.8	8.0	8.0	7.9	8.1	8.0	8.1	7.9	8.0
24	7.9	8.0	Missing Data	7.8	8.0	8.0	8.0	8.1	8.0	8.1	7.8	8.0
25	7.9	8.1	Missing Data	7.8	8.0	8.0	Missing Data	8.1	8.0	8.0	7.9	8.0
26	7.9	8.2	Missing Data	7.8	Missing Data	7.9	Missing Data	8.1	7.9	8.0	7.9	7.9
27	7.9	8.2	Missing Data	7.7	Missing Data	7.9	8.2	8.1	7.8	7.9	8.0	7.9
28	7.9	8.2	Missing Data	7.7	Missing Data	8.0	8.2	8.1	7.9	8.0	8.0	7.9
29	7.9	8.2	Missing Data	7.8	NA	8.0	8.2	8.0	7.9	8.0	7.9	8.0
30	7.9	8.2	7.9	7.9	NA	8.0	8.2	8.1	8.0	8.0	7.9	8.0
31	7.9	NA	7.8	8.0	NA	8.0	NA	8.1	NA	7.9	7.8	NA
Partial Data												
Monthly:												
Average	7.9	7.9	7.9	7.9	7.9	8.0	8.0	8.1	8.0	7.9	7.9	7.9
Partial Data												

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Standard pH Units

7.9

Partial Data

Final Automated Surface-Water Monitoring Report Appendices: Water Year 2001

Table B-61. WY01 Mean Daily Specific Conductivity at GS10: South Walnut Creek at B-1 Bypass.Water Year 2001: Daily Mean Specific Conductivity Values in $\mu\text{S}/\text{cm}$

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	906	848	1225	2350	13139	Missing Data	1891	1805	1551	1379	1245	1283
2	910	921	1182	2088	10777	Missing Data	2054	1746	1529	1316	1032	1279
3	807	794	1147	1885	7413	Missing Data	2059	784	1516	1284	1153	1242
4	813	888	1121	1766	6159	Missing Data	2037	624	1118	1259	1206	1245
5	590	767	1130	2014	4960	Missing Data	2013	404	997	1263	1239	1270
6	483	799	10468	1722	3658	1973	2014	1182	1404	1048	1232	1238
7	714	932	11368	1812	3487	1979	1992	1408	Missing Data	1009	1289	Missing Data
8	899	963	8439	1587	3221	1958	1934	1541	Missing Data	1049	1289	322
9	963	979	5977	1545	4900	1900	1929	1601	1442	920	798	828
10	974	987	4080	1500	8823	2199	1795	1629	1484	1021	987	1101
11	974	2778	Missing Data	1490	5699	5554	1423	1647	1505	702	1005	1209
12	963	3379	Missing Data	1488	2753	3461	897	1680	1455	902	1188	1246
13	520	2097	Missing Data	1434	2773	2933	1001	1859	1071	860	1253	1088
14	841	1705	Missing Data	1441	4388	2547	1249	1564	1090	825	1051	651
15	924	1511	Missing Data	1411	6340	2528	1461	1547	1420	888	458	912
16	941	1276	Missing Data	5414	6905	2457	1600	1681	1474	1240	939	1143
17	943	1192	Missing Data	10907	5968	3340	1745	1440	1479	1351	1168	1148
18	942	4786	Missing Data	8195	4254	2748	1698	1352	1491	1365	1244	1103
19	929	5968	Missing Data	5928	2836	2467	1743	1010	1484	1369	1289	1034
20	885	2460	Missing Data	4281	2861	2345	1815	1324	1471	1381	1220	1177
21	876	1902	Missing Data	3040	2839	2217	1635	608	1475	1360	1144	1105
22	587	1635	Missing Data	2404	2750	2067	784	1247	1480	1355	1225	1157
23	596	1521	Missing Data	2162	2629	2131	1749	1438	1480	1374	1223	1190
24	883	1434	Missing Data	2204	2510	2115	1435	1525	1475	1370	1219	1223
25	924	1368	Missing Data	2554	2422	2022	Missing Data	1537	1453	1373	1268	1281
26	964	1334	Missing Data	1921	Missing Data	2503	Missing Data	1533	1311	1196	1254	1107
27	968	1298	Missing Data	1637	Missing Data	1857	1760	1581	1243	1058	1263	1152
28	973	1254	Missing Data	2673	Missing Data	2113	1795	1217	1342	1195	1255	1166
29	978	1233	Missing Data	10256	NA	2053	1950	1174	1385	1314	1274	1136
30	975	1260	3355	17399	NA	1835	1791	1492	1381	1328	1288	1136
31	888	NA	2669	15262	NA	1607	NA	1525	NA	1319	1315	NA

Monthly

Average	856	1676	4346	3922	4979	2419	1687	1369	1392	1176	1160	1109
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

$\mu\text{S}/\text{cm}$	2016
Partial Data	

Table B-62. WY01 Mean Daily Turbidity at GS10: South Walnut Creek at B-1 Bypass.

Water Year 2001: Daily Mean Turbidity Values in NTU

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	1	2	2	2	4	Missing Data	6	2	1	1	5	1
2	1	1	1	2	5	Missing Data	4	91	5	1	2	0
3	13	3	20	3	4	Missing Data	2	112	2	1	1	1
4	1	1	1	4	4	Missing Data	2	108	6	1	0	1
5	30	11	1	4	4	Missing Data	2	81	14	3	3	0
6	13	1	10	3	3	3	3	4	2	38	3	1
7	3	0	9	3	2	6	2	2	Missing Data	5	0	Missing Data
8	0	1	5	5	3	4	2	1	Missing Data	14	0	54
9	0	1	4	3	4	3	2	1	1	4	57	3
10	0	1	2	4	3	159	24	1	1	50	4	1
11	0	1	Missing Data	4	54	76	182	2	2	29	2	1
12	2	1	Missing Data	3	5	20	91	2	2	7	1	0
13	20	0	Missing Data	2	2	31	25	2	73	55	2	11
14	1	0	Missing Data	2	28	4	7	12	5	119	5	23
15	0	0	Missing Data	2	31	3	3	3	1	6	80	3
16	0	Missing Data	Missing Data	22	9	8	3	4	1	1	4	1
17	1	1	Missing Data	10	7	33	2	19	1	1	1	2
18	0	3	Missing Data	7	5	5	2	5	3	1	1	1
19	2	5	Missing Data	5	4	2	2	73	2	1	1	1
20	0	2	Missing Data	3	2	3	2	19	1	1	2	0
21	0	2	Missing Data	3	12	3	59	27	1	1	1	1
22	27	1	Missing Data	2	2	4	102	1	1	1	1	1
23	6	3	Missing Data	2	2	2	39	1	1	1	0	1
24	1	0	Missing Data	3	2	2	5	1	1	1	1	0
25	0	0	Missing Data	8	3	7	Missing Data	1	1	1	0	1
26	1	1	Missing Data	4	Missing Data	172	Missing Data	1	13	6	1	2
27	1	1	Missing Data	3	Missing Data	23	2	1	2	2	1	2
28	0	2	Missing Data	2	Missing Data	2	2	47	1	1	1	1
29	0	1	Missing Data	11	NA	47	3	7	1	0	1	1
30	1	1	3	11	NA	14	2	1	1	1	1	0
31	7	NA	2	5	NA	20	NA	1	NA	1	0	NA

Monthly

Average	4	2	5	5	8	25	20	20	5	11	6	4
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

NTU	10
Partial Data	

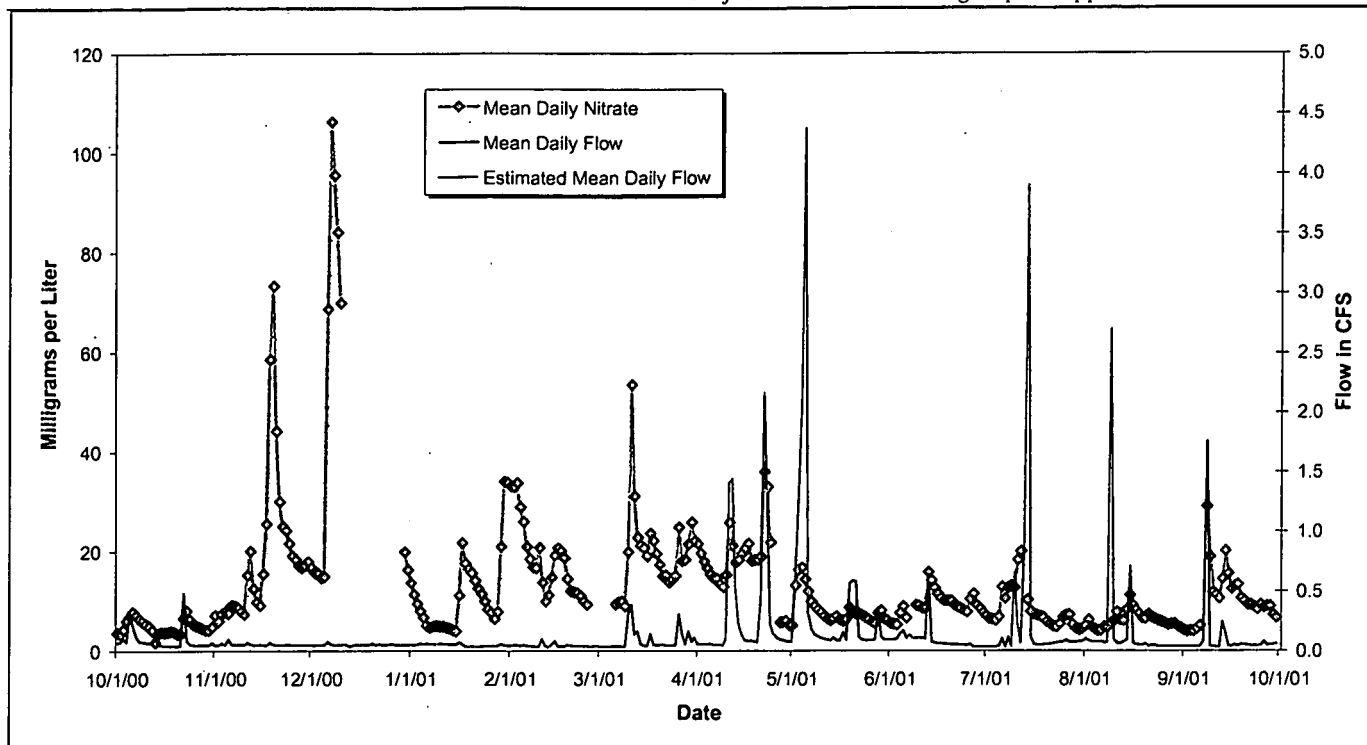


Figure B-2. WY01 Mean Daily Nitrate at GS10: South Walnut Creek at B-1 Bypass.

Table B-63. WY01 Mean Daily Nitrate at GS10: South Walnut Creek at B-1 Bypass.

Water Year 2001: Daily Mean Nitrate Values in mg/L

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	4	7	17	14	33	Missing Data	22	5	6	7	5	4
2	3	6	16	11	33	Missing Data	20	13	5	6	6	4
3	4	7	16	9	34	Missing Data	18	16	5	6	5	4
4	6	8	15	8	29	Missing Data	17	17	8	6	4	4
5	7	7	15	7	26	Missing Data	15	14	9	7	4	4
6	8	9	69	5	21	9	15	12	7	13	4	5
7	7	9	106	5	18	10	14	10	Missing Data	10	5	Missing Data
8	6	9	96	5	17	10	13	9	Missing Data	13	5	29
9	6	8	84	5	17	9	13	8	9	13	5	19
10	5	7	70	5	21	20	15	8	9	13	6	12
11	5	15	Missing Data	5	14	53	26	7	9	18	8	11
12	4	20	Missing Data	5	10	31	21	6	8	20	8	11
13	2	12	Missing Data	4	11	23	18	6	16	Missing Data	6	14
14	3	10	Missing Data	4	15	21	18	6	14	10	8	20
15	4	9	Missing Data	4	19	21	19	7	13	8	11	15
16	4	15	Missing Data	11	21	19	20	6	11	7	9	12
17	4	25	Missing Data	22	20	24	21	6	11	7	8	13
18	4	59	Missing Data	18	19	22	18	6	10	7	7	13
19	4	73	Missing Data	16	14	19	18	9	10	7	6	11
20	3	44	Missing Data	16	12	17	18	8	10	6	6	10
21	3	30	Missing Data	14	12	15	19	7	9	5	7	9
22	7	25	Missing Data	13	12	15	36	7	9	5	7	9
23	8	24	Missing Data	11	11	14	33	7	9	5	6	9
24	6	22	Missing Data	10	10	14	22	7	8	5	6	8
25	5	19	Missing Data	8	9	15	Missing Data	6	8	7	6	9
26	5	18	Missing Data	8	Missing Data	25	Missing Data	6	10	7	6	9
27	5	17	Missing Data	6	Missing Data	18	6	5	11	7	5	9
28	4	17	Missing Data	8	Missing Data	18	6	8	9	5	5	9
29	4	17	Missing Data	21	NA	21	6	8	8	4	5	7
30	4	18	20	34	NA	26	5	6	8	4	5	7
31	5	NA	16	34	NA	22	NA	6	NA	4	5	NA
Monthly Average	5	19	45	11	18	20	18	8	9	8	6	10
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

mg/L 13
Partial Data

B.5.2.7 SW027: South Interceptor Ditch at Pond C-2**Table B-64. WY01 Mean Daily Water Temperature at SW027: SID at Pond C-2.****Water Year 2001: Daily Mean Temperature Values in Degrees Celsius**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	10.8	No Flow	No Flow	No Flow	No Flow	No Flow	4.8	7.8	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4.8	7.1	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4.8	5.7	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5.0	4.9	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5.1	5.4	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.9	No Flow	No Flow	No Flow	No Flow
7	9.8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.0	No Flow	No Flow	No Flow	No Flow
8	9.8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.0	No Flow	No Flow	No Flow	11.7
9	9.4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.3	No Flow	No Flow	17.4	11.8
10	9.5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.4	No Flow	No Flow	18.6	Missing Data
11	9.5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.5	No Flow	No Flow	18.2	Missing Data
12	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	2.5	8.7	No Flow	No Flow	15.7	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	4.7	9.0	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	5.5	9.0	No Flow	Missing Data	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	5.7	9.1	No Flow	Missing Data	15.7	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	5.8	No Flow	No Flow	Missing Data	16.1	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3.1	5.5	No Flow	No Flow	15.2	15.8
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3.7	5.7	No Flow	No Flow	14.9	15.3
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2.9	6.3	10.0	No Flow	15.1	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3.2	6.2	10.2	No Flow	15.1	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3.4	5.7	8.1	No Flow	14.9	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3.5	3.8	8.9	No Flow	No Flow	No Flow
23	8.8	No Flow	No Flow	No Flow	No Flow	No Flow	4.1	9.2	No Flow	No Flow	No Flow	No Flow
24	9.0	No Flow	No Flow	No Flow	No Flow	No Flow	6.3	9.4	No Flow	No Flow	No Flow	No Flow
25	9.0	No Flow	No Flow	No Flow	No Flow	No Flow	6.9	9.4	No Flow	No Flow	No Flow	No Flow
26	8.9	No Flow	No Flow	No Flow	No Flow	No Flow	7.2	9.8	No Flow	No Flow	No Flow	No Flow
27	8.8	No Flow	No Flow	No Flow	No Flow	No Flow	4.6	7.4	9.5	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	4.8	7.8	9.5	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	4.2	7.7	9.5	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	5.0	7.5	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	4.7	NA	No Flow	NA	No Flow	No Flow	NA

Partial Data

Partial Data

Partial Data

Monthly

Average	9.3	No Flow	No Flow	No Flow	No Flow	3.9	5.7	8.3	No Flow	15.1	16.1	11.7
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Partial Data

Partial Data

Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Degrees Celsius

8.0

Partial Data

Table B-65. WY01 Mean Daily pH at SW027: SID at Pond C-2.**Water Year 2001: Daily Mean pH Values in Standard Units**

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	7.9	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	8.0	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	8.0	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	7.9	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	8.0	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	7.9	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.0	No Flow	No Flow	No Flow	No Flow
7	7.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	No Flow	No Flow	No Flow	No Flow
8	7.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	No Flow	No Flow	No Flow	7.8
9	7.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	No Flow	No Flow	7.8	7.8
10	7.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	No Flow	No Flow	7.7	Missing Data
11	7.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	No Flow	No Flow	7.7	Missing Data
12	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	8.0	8.0	No Flow	No Flow	7.7	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	8.0	8.0	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	8.1	8.0	No Flow	Missing Data	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	8.0	8.0	No Flow	Missing Data	7.8	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	8.0	No Flow	No Flow	Missing Data	7.7	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	8.0	No Flow	No Flow	7.8	7.7	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	8.0	No Flow	No Flow	7.8	7.7	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	8.1	7.8	No Flow	7.7	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	8.1	7.8	No Flow	7.8	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	8.1	7.9	No Flow	7.8	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	8.1	7.9	No Flow	No Flow	No Flow	No Flow
23	7.8	No Flow	No Flow	No Flow	No Flow	No Flow	8.0	7.9	No Flow	No Flow	No Flow	No Flow
24	7.8	No Flow	No Flow	No Flow	No Flow	No Flow	8.0	7.9	No Flow	No Flow	No Flow	No Flow
25	7.8	No Flow	No Flow	No Flow	No Flow	No Flow	8.0	7.9	No Flow	No Flow	No Flow	No Flow
26	7.8	No Flow	No Flow	No Flow	No Flow	No Flow	7.9	8.0	No Flow	No Flow	No Flow	No Flow
27	7.8	No Flow	No Flow	No Flow	No Flow	7.8	7.9	8.0	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	7.9	7.9	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	7.9	7.9	7.9	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	7.9	8.0	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	7.9	NA	No Flow	NA	No Flow	No Flow	NA

Partial Data

Partial Data

Partial Data

Monthly

Average	7.8	No Flow	No Flow	No Flow	No Flow	7.8	8.0	7.9	No Flow	7.8	7.7	7.8
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Partial Data

Partial Data

Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Standard pH Units

7.9

Partial Data

Final Automated Surface-Water Monitoring Report Appendices: Water Year 2001

Table B-66. WY01 Mean Daily Specific Conductivity at SW027: SID at Pond C-2.

Water Year 2001: Daily Mean Specific Conductivity Values in $\mu\text{S}/\text{cm}$

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	502	No Flow	No Flow	No Flow	No Flow	No Flow	2219	1089	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2212	1073	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2212	1355	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2216	958	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2218	395	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	502	No Flow	No Flow	No Flow	No Flow
7	547	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	620	No Flow	No Flow	No Flow	No Flow
8	570	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	672	No Flow	No Flow	No Flow	341
9	578	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	714	No Flow	No Flow	273	386
10	586	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	758	No Flow	No Flow	366	Missing Data
11	585	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	794	No Flow	No Flow	403	Missing Data
12	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	1227	836	No Flow	No Flow	387	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	981	884	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	851	901	No Flow	Missing Data	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	887	904	No Flow	Missing Data	472	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	903	No Flow	No Flow	Missing Data	526	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	2471	933	No Flow	No Flow	439	549	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	2471	959	No Flow	No Flow	435	542	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	2474	996	879	No Flow	519	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	2488	997	914	No Flow	534	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	2489	981	733	No Flow	541	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	2487	823	647	No Flow	No Flow	No Flow	No Flow
23	581	No Flow	No Flow	No Flow	No Flow	No Flow	1142	685	No Flow	No Flow	No Flow	No Flow
24	569	No Flow	No Flow	No Flow	No Flow	No Flow	997	727	No Flow	No Flow	No Flow	No Flow
25	580	No Flow	No Flow	No Flow	No Flow	No Flow	970	747	No Flow	No Flow	No Flow	No Flow
26	584	No Flow	No Flow	No Flow	No Flow	No Flow	1004	781	No Flow	No Flow	No Flow	No Flow
27	588	No Flow	No Flow	No Flow	No Flow	2379	1038	785	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	2748	1059	777	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	2592	1080	776	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	2438	1080	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	2252	NA	No Flow	NA	No Flow	No Flow	NA

Partial Data

Partial Data

Partial Data

Monthly

Average	570	No Flow	No Flow	No Flow	No Flow	2479	1217	803	No Flow	488	452	372
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Partial Data

Partial Data

Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

$\mu\text{S}/\text{cm}$	1070
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Partial Data

Table B-67. WY01 Mean Daily Turbidity at SW027: SID at Pond C-2.

Water Year 2001: Daily Mean Turbidity Values in NTU

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	3	No Flow	No Flow	No Flow	No Flow	No Flow	0	1	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	0	1	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	0	17	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	0	46	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	0	75	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18	No Flow	No Flow	No Flow	No Flow
7	4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5	No Flow	No Flow	No Flow	No Flow
8	3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow	Missing Data
9	3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2	No Flow	No Flow	Missing Data	Missing Data
10	2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	Missing Data	Missing Data
11	2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	Missing Data	Missing Data
12	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	37	0	No Flow	No Flow	Missing Data	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	26	0	No Flow	No Flow	Missing Data	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	11	0	No Flow	Missing Data	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	7	0	No Flow	Missing Data	Missing Data	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	4	No Flow	No Flow	Missing Data	Missing Data	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	0	3	No Flow	No Flow	23	Missing Data	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	0	3	No Flow	No Flow	23	Missing Data	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	0	2	5	No Flow	15	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	0	2	3	No Flow	13	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	0	2	11	No Flow	13	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	0	25	6	No Flow	No Flow	No Flow	No Flow
23	4	No Flow	No Flow	No Flow	No Flow	No Flow	31	3	No Flow	No Flow	No Flow	No Flow
24	3	No Flow	No Flow	No Flow	No Flow	No Flow	18	2	No Flow	No Flow	No Flow	No Flow
25	2	No Flow	No Flow	No Flow	No Flow	No Flow	6	2	No Flow	No Flow	No Flow	No Flow
26	2	No Flow	No Flow	No Flow	No Flow	No Flow	3	1	No Flow	No Flow	No Flow	No Flow
27	2	No Flow	No Flow	No Flow	No Flow	1	2	1	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	1	1	1	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	0	1	1	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	0	1	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	0	NA	No Flow	NA	No Flow	No Flow	NA

Partial Data

Partial Data

Missing Data

Missing Data

Monthly

Average	3	No Flow	No Flow	No Flow	No Flow	0	8	8	No Flow	18	NA	NA
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Partial Data

Partial Data

Missing Data

Missing Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: *Italic values include estimated data*

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

NTU	7
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Partial Data

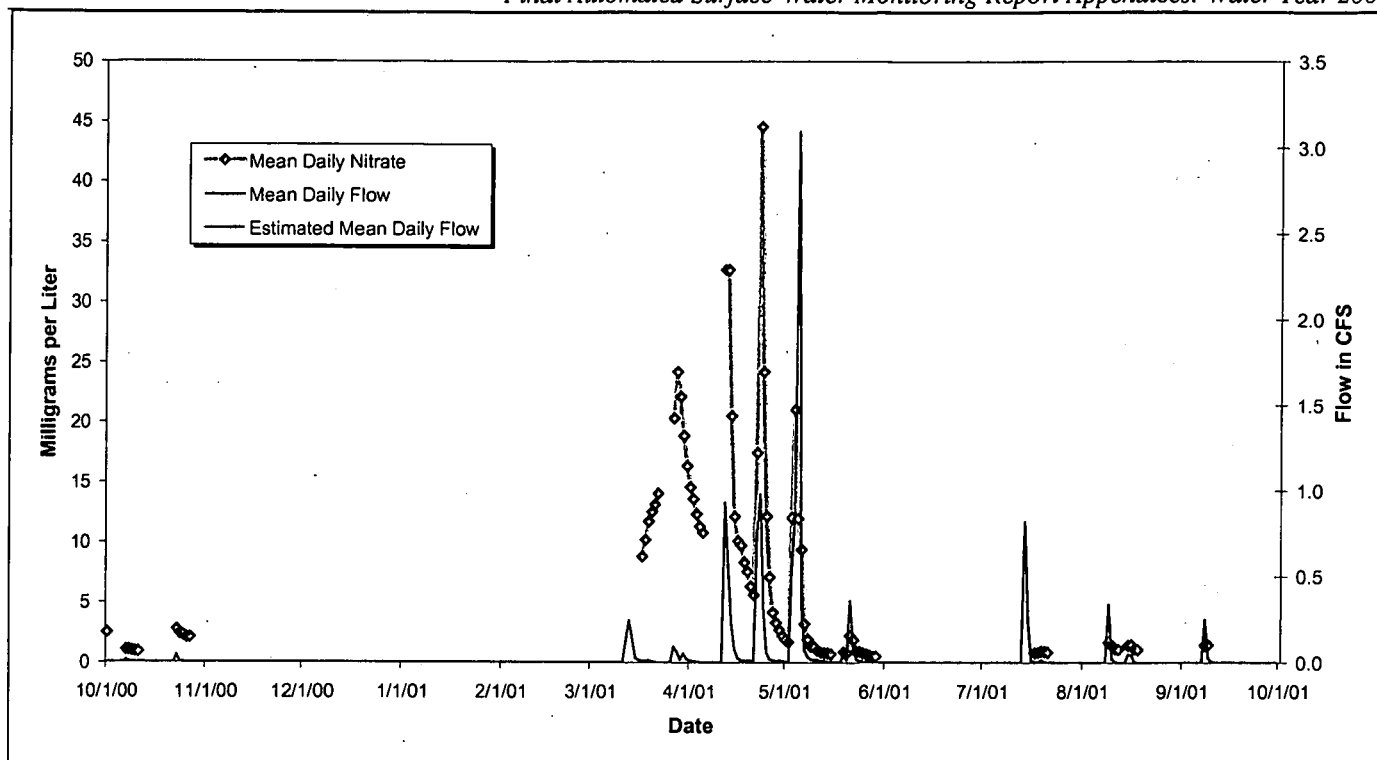


Figure B-3. WY01 Mean Daily Nitrate at SW027: SID at Pond C-2.

Table B-68. WY01 Mean Daily Nitrate at SW027: SID at Pond C-2.

Water Year 2001: Daily Mean Nitrate Values in mg/L

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	2	No Flow	No Flow	No Flow	No Flow	No Flow	15	2	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	14	2	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12	12	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11	21	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11	12	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	No Flow	No Flow
7	1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow	No Flow
8	1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2	No Flow	No Flow	No Flow	1
9	1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	2	1
10	1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	1	Missing Data
11	1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	1	Missing Data
12	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	33	1	No Flow	No Flow	1	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	33	1	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	21	1	No Flow	Missing Data	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	12	1	No Flow	Missing Data	1	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	10	No Flow	No Flow	Missing Data	1	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	9	10	No Flow	No Flow	1	1	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	10	8	No Flow	No Flow	1	1	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	12	8	1	No Flow	1	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	13	6	1	No Flow	1	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	73	6	2	No Flow	1	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	14	17	2	No Flow	No Flow	No Flow	No Flow
23	3	No Flow	No Flow	No Flow	No Flow	No Flow	45	1	No Flow	No Flow	No Flow	No Flow
24	2	No Flow	No Flow	No Flow	No Flow	No Flow	24	1	No Flow	No Flow	No Flow	No Flow
25	2	No Flow	No Flow	No Flow	No Flow	No Flow	12	1	No Flow	No Flow	No Flow	No Flow
26	2	No Flow	No Flow	No Flow	No Flow	No Flow	7	1	No Flow	No Flow	No Flow	No Flow
27	2	No Flow	No Flow	No Flow	No Flow	20	4	1	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	24	3	1	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	22	3	1	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	19	2	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	16	NA	No Flow	NA	No Flow	No Flow	NA
Partial Data												
Monthly Average	2	No Flow	No Flow	No Flow	No Flow	16	14	3	No Flow	1	1	1
Partial Data												

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

mg/L 8
Partial Data

B.5.2.8 SW093: North Walnut Creek 1300' Upstream of A-1 Bypass**Table B-69. WY01 Mean Daily Water Temperature at SW093: North Walnut Creek at A-1 Bypass.**

Water Year 2001: Daily Mean Temperature Values in Degrees Celsius												
Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	12.8	9.0	4.0	Missing Data	2.8	Missing Data	6.0	10.5	13.8	16.1	14.9	13.9
2	12.7	7.7	3.8	Missing Data	3.7	Missing Data	6.7	7.9	13.9	15.9	15.2	13.6
3	13.0	7.3	5.0	Missing Data	3.8	Missing Data	7.3	5.5	13.7	16.0	14.8	13.6
4	12.3	7.6	4.4	Missing Data	3.3	Missing Data	7.7	5.5	13.0	16.5	14.7	13.7
5	11.4	7.8	4.4	Missing Data	3.9	Missing Data	7.9	6.2	13.4	16.7	14.8	13.6
6	8.7	5.9	4.3	Missing Data	3.3	4.7	7.6	8.6	14.0	16.9	14.8	13.6
7	8.3	5.1	5.3	Missing Data	2.6	4.8	6.8	9.5	Missing Data	17.0	15.0	Missing Data
8	8.8	5.4	4.6	Missing Data	0.9	4.8	6.9	10.4	Missing Data	17.3	14.8	11.3
9	9.3	5.5	5.5	Missing Data	0.4	4.9	6.6	10.5	13.8	16.8	15.8	11.7
10	10.2	4.5	3.6	Missing Data	1.2	3.7	6.1	10.2	13.0	17.5	16.3	12.9
11	10.8	3.7	1.2	Missing Data	1.8	2.4	3.1	11.0	13.2	17.9	15.8	12.9
12	11.3	2.8	1.0	Missing Data	2.2	2.3	4.4	11.5	14.9	17.3	15.2	13.4
13	10.8	3.0	1.6	Missing Data	2.6	3.6	5.8	11.9	12.4	16.9	15.4	13.9
14	10.0	3.1	3.0	Missing Data	1.1	3.3	6.1	12.1	11.0	16.9	15.5	15.4
15	9.6	3.9	3.7	Missing Data	1.8	3.0	6.8	11.9	12.1	16.7	16.5	14.7
16	10.1	3.1	3.0	Missing Data	1.6	3.4	5.4	12.0	13.2	15.9	15.5	14.0
17	10.2	Missing Data	4.1	Missing Data	2.3	3.5	6.9	11.7	13.9	15.1	14.8	13.8
18	10.5	Missing Data	3.0	Missing Data	2.9	3.4	8.1	12.0	14.1	14.6	14.4	13.2
19	10.7	4.5	3.8	Missing Data	3.4	4.0	8.7	12.5	14.4	14.7	14.2	13.1
20	10.5	4.0	3.0	Missing Data	3.3	5.1	8.1	10.2	14.2	14.7	14.3	13.1
21	10.4	5.2	1.4	Missing Data	3.2	5.8	8.8	8.6	15.0	14.6	14.6	13.0
22	9.8	5.3	Missing Data	Missing Data	3.6	6.3	3.1	10.1	14.8	14.6	14.2	12.8
23	9.5	5.0	Missing Data	Missing Data	3.4	5.9	5.8	11.0	14.5	14.5	14.5	12.5
24	10.2	5.0	Missing Data	Missing Data	3.6	4.9	7.7	11.6	14.8	15.1	14.1	12.3
25	10.1	4.7	Missing Data	Missing Data	3.4	4.3	Missing Data	11.5	15.0	16.5	14.3	12.5
26	9.8	5.3	Missing Data	2.8	3.3	3.8	Missing Data	12.4	15.4	16.2	14.1	12.5
27	9.6	5.2	Missing Data	2.3	1.9	5.1	10.0	13.2	15.4	16.0	13.9	12.6
28	10.0	4.9	Missing Data	2.1	Missing Data	4.8	10.0	13.1	15.3	15.5	13.9	12.8
29	10.3	3.9	Missing Data	2.6	NA	4.7	10.2	13.3	15.7	15.3	13.6	13.0
30	9.7	4.9	Missing Data	2.9	NA	5.2	10.1	12.9	15.9	15.0	13.9	13.0
31	9.2	NA	Missing Data	2.2	NA	5.1	NA	12.9	NA	14.7	13.9	NA
Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data												
Monthly												
Average	10.3	5.1	3.5	2.5	2.6	4.3	7.0	10.7	14.1	16.0	14.8	13.2
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Degrees Celsius

9.4

Partial Data

Table B-70. WY01 Mean Daily pH at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2001: Daily Mean pH Values in Standard Units												
Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	8.0	7.9	7.9	Missing Data	7.7	Missing Data	7.8	8.0	7.8	7.7	7.5	7.4
2	7.9	7.8	7.9	Missing Data	7.8	Missing Data	7.8	7.9	7.8	7.7	7.5	7.4
3	7.8	7.8	7.9	Missing Data	7.9	Missing Data	7.9	7.9	7.8	7.7	7.4	7.4
4	7.9	7.8	7.9	Missing Data	7.9	Missing Data	7.9	7.9	7.8	7.7	7.4	7.4
5	7.9	7.8	7.8	Missing Data	7.9	Missing Data	7.9	7.9	7.8	7.7	7.4	7.4
6	7.8	7.9	7.8	Missing Data	7.9	7.9	7.9	8.0	7.8	7.6	7.4	7.4
7	7.8	7.9	7.8	Missing Data	7.9	7.9	7.9	8.0	Missing Data	7.6	7.4	Missing Data
8	7.9	7.9	7.8	Missing Data	7.8	7.9	7.8	8.0	Missing Data	7.7	7.4	7.7
9	7.9	7.9	7.8	Missing Data	7.7	8.0	7.8	8.0	7.7	7.6	7.5	7.7
10	7.9	7.8	7.8	Missing Data	7.7	7.8	7.8	8.0	7.7	7.6	7.6	7.7
11	7.9	7.8	7.8	Missing Data	7.8	7.8	7.8	7.9	7.8	7.6	7.6	7.8
12	7.9	7.7	7.7	Missing Data	7.8	7.8	7.9	7.9	7.8	7.6	7.6	7.7
13	7.9	7.7	7.7	Missing Data	7.8	7.8	7.9	7.9	7.7	7.7	7.6	7.7
14	7.9	7.8	7.8	Missing Data	7.8	7.9	7.8	7.9	7.7	7.8	7.6	7.8
15	7.9	7.8	7.8	Missing Data	7.8	7.9	7.8	7.9	7.7	7.8	7.7	7.8
16	7.9	7.8	7.7	Missing Data	7.8	7.9	7.8	7.9	7.7	7.4	7.7	7.9
17	7.9	Missing Data	7.7	Missing Data	7.8	7.9	7.8	7.9	7.7	7.4	7.7	7.8
18	7.8	Missing Data	7.7	Missing Data	7.8	7.9	7.8	7.9	7.7	7.4	7.7	7.8
19	7.8	7.7	7.8	Missing Data	7.9	7.9	7.9	7.9	7.7	7.4	7.6	7.8
20	7.9	7.8	7.7	Missing Data	7.8	7.9	7.9	7.9	7.7	7.4	7.6	7.7
21	7.9	7.9	7.7	Missing Data	7.9	7.9	7.9	7.8	7.6	7.4	7.6	7.7
22	7.8	7.9	Missing Data	Missing Data	7.9	7.9	7.8	7.9	7.6	7.4	7.6	7.7
23	7.8	7.9	Missing Data	Missing Data	7.9	7.9	7.8	7.9	7.6	7.4	7.5	7.6
24	7.9	7.9	Missing Data	Missing Data	7.9	7.9	7.8	7.9	7.6	7.5	7.5	7.7
25	7.8	7.9	Missing Data	Missing Data	7.9	7.9	7.9	7.9	7.6	7.6	7.5	7.7
26	7.9	7.9	Missing Data	7.7	7.8	7.9	7.9	7.9	7.8	7.6	7.5	7.7
27	7.9	7.9	Missing Data	7.7	7.8	7.8	8.0	7.9	7.7	7.6	7.5	7.7
28	7.9	7.9	Missing Data	7.7	Missing Data	7.9	8.0	7.8	7.7	7.6	7.5	7.8
29	7.9	7.8	Missing Data	7.6	NA	7.9	8.0	7.8	7.7	7.6	7.5	7.7
30	7.8	7.9	Missing Data	7.8	NA	7.8	8.0	7.8	7.7	7.5	7.5	7.7
31	7.9	NA	Missing Data	7.6	NA	7.8	NA	7.8	NA	7.5	7.5	NA
Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data												
Monthly												
Average	7.9	7.8	7.8	7.7	7.8	7.9	7.9	7.9	7.7	7.6	7.5	7.6
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

Standard pH Units

7.7

Partial Data

Final Automated Surface-Water Monitoring Report Appendices: Water Year 2001

Table B-71. WY01 Mean Daily Specific Conductivity at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2001: Daily Mean Specific Conductivity Values in $\mu\text{S}/\text{cm}$

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	528	1001	979	Missing Data	1907	Missing Data	2501	1505	752	518	1049	1082
2	726	984	963	Missing Data	1762	Missing Data	2157	2853	716	519	1179	1082
3	950	903	985	Missing Data	1903	Missing Data	2022	2098	888	513	1161	1086
4	1007	991	981	Missing Data	2281	Missing Data	1935	1441	784	495	1133	1090
5	744	883	1016	Missing Data	1854	Missing Data	1877	835	1068	501	1137	1077
6	1568	968	8273	Missing Data	1944	1598	1816	1322	750	594	1137	1068
7	1184	972	4637	Missing Data	1860	1680	1781	1356	Missing Data	655	1117	Missing Data
8	1042	971	2680	Missing Data	1530	1477	1727	1336	Missing Data	574	1123	884
9	1030	973	2084	Missing Data	3044	1422	1662	1327	997	591	1094	1847
10	1027	965	1864	Missing Data	3012	3278	1661	1326	1096	549	1254	1157
11	1017	2885	2459	Missing Data	3877	6649	2528	1309	1084	674	1408	1052
12	1018	2631	3450	Missing Data	3223	6423	2289	1318	738	978	1288	885
13	1007	1784	2375	Missing Data	2335	3378	1759	1322	1053	890	1156	1001
14	977	1321	2099	Missing Data	4567	2397	1775	1423	1382	1226	1262	1116
15	998	1196	1966	Missing Data	5657	2198	1749	1388	816	863	989	1729
16	997	1142	1665	Missing Data	4361	2043	1710	1339	708	1002	1325	1374
17	983	Missing Data	1425	Missing Data	2787	3719	1877	1573	709	1117	1174	1244
18	984	Missing Data	1404	Missing Data	2444	2971	1588	1437	662	1236	1182	1249
19	935	2532	1304	Missing Data	2435	2256	1558	2235	593	1229	1171	1177
20	924	1744	2299	Missing Data	2636	1976	1539	1338	589	1246	1149	1100
21	971	1462	3240	Missing Data	2468	1857	1489	1442	574	1257	1204	1071
22	817	1357	Missing Data	Missing Data	2221	1803	2254	1271	571	1282	1162	1078
23	1259	1264	Missing Data	Missing Data	2035	1782	2483	1351	568	1385	1130	1085
24	1039	1192	Missing Data	Missing Data	1880	1742	1686	1046	557	1182	1128	1051
25	1012	1200	Missing Data	Missing Data	1788	1692	1631	888	558	694	1188	1054
26	1003	1121	Missing Data	1670	1674	4141	1552	838	529	663	1122	1053
27	1006	1094	Missing Data	1370	2063	3231	1476	794	537	719	1124	1047
28	1003	1074	Missing Data	1356	Missing Data	2430	1485	844	535	628	1117	1039
29	1002	1017	Missing Data	6764	NA	2252	1489	1245	537	621	1099	1033
30	1006	1034	Missing Data	5078	NA	3295	1558	873	527	799	1099	1020
31	974	NA	Missing Data	2517	NA	2432	NA	824	NA	1033	1087	NA
Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data												
Monthly Average	992	1309	2293	3126	2568	2697	1812	1339	738	846	1159	1125
Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data												

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

 $\mu\text{S}/\text{cm}$ 1521

Partial Data

Table B-72. WY01 Mean Daily Turbidity at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2001: Daily Mean Turbidity Values in NTU

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	1	2	3	Missing Data	1	Missing Data	2	1	18	27	Missing Data	Missing Data
2	2	3	2	Missing Data	2	Missing Data	2	93	20	15	Missing Data	Missing Data
3	7	5	2	Missing Data	2	Missing Data	2	97	21	15	Missing Data	Missing Data
4	2	2	2	Missing Data	0	Missing Data	2	145	31	15	Missing Data	Missing Data
5	17	11	2	Missing Data	1	Missing Data	2	156	26	17	Missing Data	Missing Data
6	10	2	12	Missing Data	0	4	2	13	20	Missing Data	Missing Data	Missing Data
7	8	2	1	Missing Data	0	1	2	6	Missing Data	Missing Data	Missing Data	Missing Data
8	4	2	1	Missing Data	0	1	2	4	Missing Data	Missing Data	Missing Data	61
9	2	2	2	Missing Data	9	1	3	3	4	Missing Data	Missing Data	2
10	1	2	1	Missing Data	1	221	44	2	3	Missing Data	Missing Data	2
11	1	4	2	Missing Data	26	87	155	2	4	53	Missing Data	2
12	2	2	1	Missing Data	5	15	90	2	16	25	Missing Data	2
13	2	2	1	Missing Data	0	16	25	2	51	81	Missing Data	18
14	3	2	2	Missing Data	23	1	7	3	13	Missing Data	Missing Data	32
15	1	Missing Data	1	Missing Data	12	2	4	1	16	Missing Data	Missing Data	2
16	2	Missing Data	1	Missing Data	0	1	2	2	18	Missing Data	Missing Data	1
17	2	Missing Data	2	Missing Data	7	39	2	23	20	37	Missing Data	5
18	2	Missing Data	2	Missing Data	8	2	3	2	22	Missing Data	Missing Data	10
19	9	3	2	Missing Data	10	4	2	95	21	Missing Data	Missing Data	3
20	19	2	4	Missing Data	4	1	1	41	20	Missing Data	Missing Data	4
21	2	2	1	Missing Data	1	6	63	27	20	Missing Data	Missing Data	3
22	37	2	Missing Data	Missing Data	0	3	103	3	19	Missing Data	Missing Data	3
23	4	2	Missing Data	Missing Data	0	2	52	2	19	Missing Data	Missing Data	3
24	1	1	Missing Data	Missing Data	0	2	7	8	19	Missing Data	Missing Data	3
25	2	2	Missing Data	Missing Data	0	18	5	14	19	Missing Data	Missing Data	3
26	1	1	Missing Data	0	0	124	3	16	20	Missing Data	Missing Data	3
27	2	2	Missing Data	1	4	27	3	18	20	Missing Data	Missing Data	3
28	2	2	Missing Data	0	Missing Data	1	3	60	25	Missing Data	Missing Data	3
29	2	4	Missing Data	16	NA	71	1	10	22	Missing Data	Missing Data	3
30	2	2	Missing Data	1	NA	10	1	14	24	Missing Data	Missing Data	3
31	8	NA	Missing Data	0	NA	25	NA	15	NA	Missing Data	Missing Data	NA
Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data												
Monthly Average	5	3	2	3	4	26	20	28	20	32	NA	7
Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data Partial Data												

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.

ITALICS: Italic values include estimated data

No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

NTU 14

Partial Data

447
447

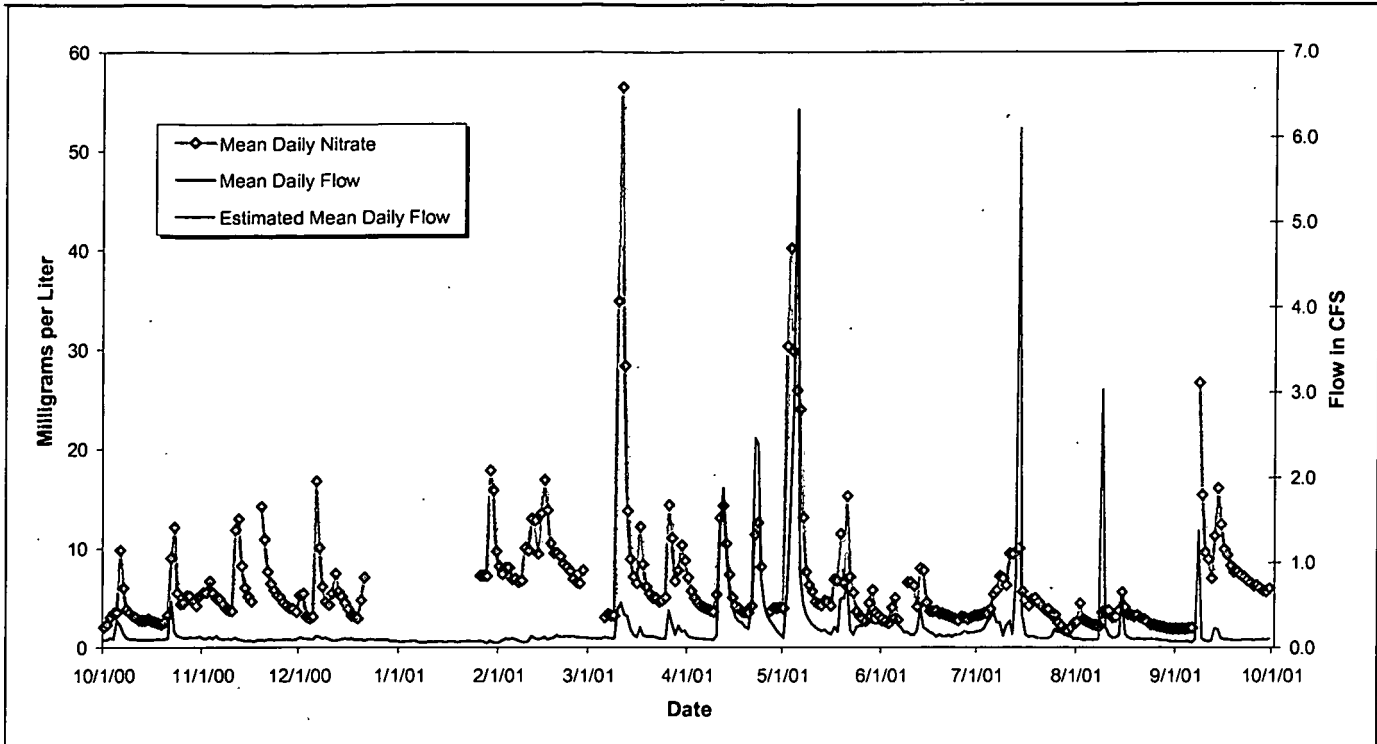


Figure B-4. WY01 Mean Daily Nitrate at SW093: North Walnut Creek at A-1 Bypass.

Table B-73. WY01 Mean Daily Nitrate at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2001: Daily Mean Nitrate Values in mg/L

Day	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
1	2	6	5	Missing Data	8	Missing Data	7	4	3	3	3	2
2	2	6	5	Missing Data	7	Missing Data	6	30	3	3	4	2
3	3	7	3	Missing Data	8	Missing Data	5	40	2	3	3	2
4	3	5	3	Missing Data	8	Missing Data	4	30	4	3	3	2
5	4	5	3	Missing Data	7	Missing Data	4	26	5	4	2	2
6	10	5	17	Missing Data	7	3	4	24	3	5	2	2
7	6	4	10	Missing Data	7	3	4	13	Missing Data	6	2	Missing Data
8	4	4	6	Missing Data	7	3	4	8	Missing Data	7	2	27
9	3	4	5	Missing Data	10	3	4	6	7	7	4	15
10	3	4	4	Missing Data	10	35	5	6	7	6	4	10
11	3	12	5	Missing Data	13	56	13	5	6	9	4	9
12	3	13	7	Missing Data	13	28	14	4	4	9	3	7
13	3	8	6	Missing Data	9	14	10	4	8	Missing Data	3	11
14	3	6	5	Missing Data	13	9	7	5	8	10	4	16
15	3	5	4	Missing Data	17	7	5	5	5	6	6	12
16	3	5	4	Missing Data	14	6	4	4	4	5	4	10
17	3	Missing Data	3	Missing Data	10	12	4	7	4	4	3	9
18	2	Missing Data	3	Missing Data	10	8	4	7	4	5	3	8
19	2	14	3	Missing Data	10	6	3	11	3	5	3	8
20	3	11	5	Missing Data	9	5	3	6	3	5	3	8
21	3	8	7	Missing Data	8	5	4	15	3	4	3	7
22	9	6	Missing Data	Missing Data	8	5	11	7	3	4	3	7
23	12	6	Missing Data	Missing Data	8	5	13	6	3	4	3	7
24	5	5	Missing Data	Missing Data	7	5	8	4	3	3	2	7
25	4	5	Missing Data	Missing Data	7	5	Missing Data	3	3	3	2	6
26	4	5	Missing Data	7	6	14	Missing Data	3	3	2	2	6
27	5	4	Missing Data	7	8	11	4	3	3	2	2	6
28	5	4	Missing Data	7	Missing Data	7	4	4	3	2	2	6
29	5	4	Missing Data	18	NA	8	4	6	3	2	2	6
30	4	4	Missing Data	18	NA	10	4	3	3	2	2	6
31	5	NA	Missing Data	10	NA	9	NA	3	NA	2	2	NA
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data
Monthly Average	4	6	5	11	9	11	6	10	4	5	3	8
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY01

mg/L 6
Partial Data